

THE GARDEN.

No. 2302.—VOL. LXXX.

JANUARY 1, 1916.

NOTES OF THE WEEK.

Begonia Mrs. J. A. Peterson.—At their meeting on December 21 the President and Council of the Royal Horticultural Society confirmed the award of merit to Begonia Mrs. J. A. Peterson, shown by Messrs. Stuart Low and Co. at the fortnightly meeting on December 7.

Perpetual-Flowering Carnation Society.—Mr. W. H. Page, who through ill-health was prevented from being present at the recent Carnation Show, writes: "The Perpetual-Flowering Carnation Society have by resolution asked me to convey to the generous donors of cut flowers, pot plants and fruit their very cordial thanks and gratitude for so kindly sending contributions in aid of the Royal Horticultural Society's Horticultural War Relief Fund. The sale was held at the Royal Horticultural Society's Hall, Vincent Square, and I am told the stall was very attractive and will result in a useful addition to this deserving fund."

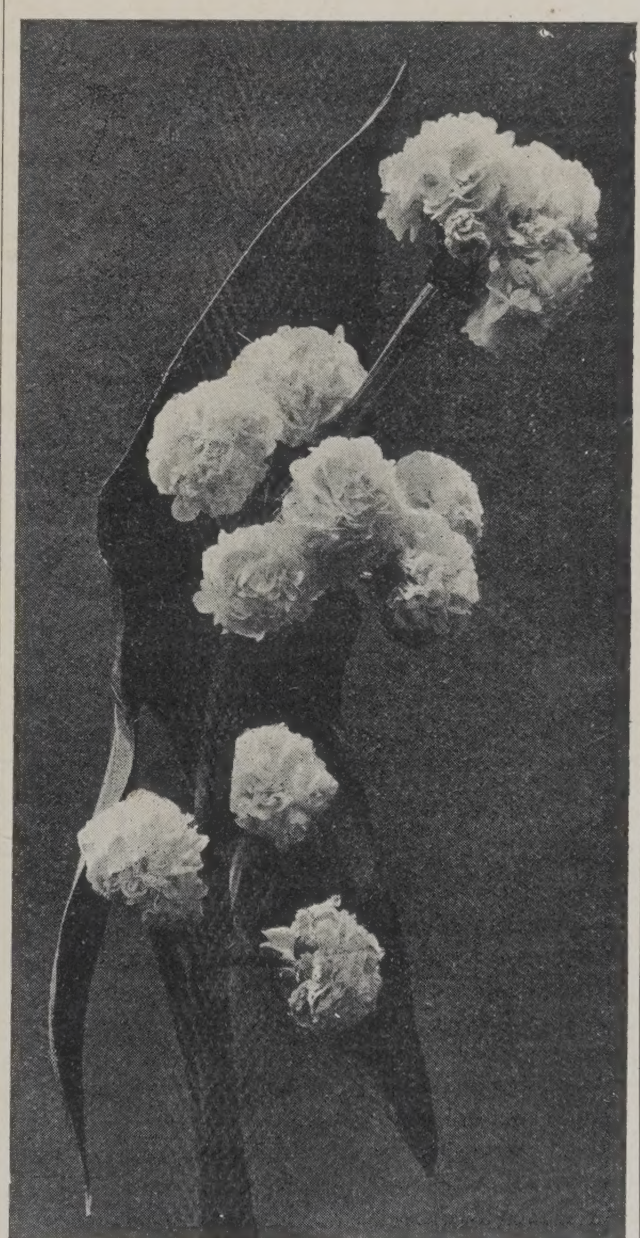
Honour for M. Louis L. de Vilmorin.—The following is an extract from the Official Journal of the French Republic concerning M. Louis L. de Vilmorin, Senior Midshipman in the French Navy, who has just been appointed Chevalier of the Legion of Honour: "Leveque de Vilmorin, Enseigne de Vaisseau de Réserve: Officer who has repeatedly and most particularly drawn the attention of his Superiors and has highly contributed to the success of military operations." M. Louis L. de Vilmorin has been at the French Front since the beginning of the war commanding a section of auto-guns, and was awarded the War Cross (Croix de Guerre) in December, 1914. He is the third of the five Vilmorin brothers now serving in the French Army.

The Seed Supply of 1916.—One effect the war has had upon the horticultural trade of this country is to show that we are no longer dependent upon Germany and Austria for our seed supply. Until the outbreak of war, immense quantities of vegetable and flower seeds were annually imported from these two countries, and Germany was then unquestionably the largest seed-producing country in Europe. Seeds are now ripened in this country on a much larger scale, while larger consignments are received from California, New Zealand and South Africa.

The Importance of Sowing Thinly.—The views expressed by the seedsmen of this country on another page of this issue will be read with a great deal of interest. No one will deny that, owing to a bad season, there is a serious shortage of seeds of certain crops. Just as it is the duty of every countryman to crop his ground to the utmost limit, so is it his duty to avoid wastage at the time of seed sowing. One of the commonest mistakes in gardening is to sow six seeds when

one would suffice. The well-worn advice to sow thinly must apply with greater force than ever this year.

A Double Flowered Arrow-head.—*Sagittaria variabilis flore pleno* is one of the most charming of all marsh-loving or aquatic plants. The flower-scape rises from 2 feet to 3 feet above



A BEAUTIFUL AQUATIC TO PLANT NOW.
SAGITTARIA VARIABILIS FLORE PLENO.

the water, and its arrow-shaped leaves are interesting. This typical species is a native of North America, but for some unaccountable reason it is known in gardens under the specific name of *japonica*. The double-flowered variety does not, of course, produce seed, but it is

increased by division. Arrow-heads should be planted in mud, and they succeed best in about a foot of water. The double form of our native Arrow-head (*S. sagittæfolia*) is also very handsome, and the flowers remain bright for a much longer period than the single flowers. This is a suitable time for planting.

A Show of Home-Grown Flower Bulbs.—The exhibition of hardy British-grown flower bulbs which is to take place in the Royal Horticultural Society's Hall, Vincent Square, on August 1, will, as the Rev. Joseph Jacob points out on page 10, afford a great object-lesson to show what our islands can produce in the way of bulbs. We do not recall ever having seen an exhibition on these lines; nevertheless, it is worthy of the whole-hearted support of the bulb-growers of this country. There is little doubt that the trade will be widely represented, and we hope also to see the amateur classes well contested.

Trials at Wisley.—We are asked to announce that tubers of late Potatoes (twenty of each variety) and seeds of Clarkia, Godetia, annual Carnations and Indian Pinks, Mignonette, Larkspurs (annual Delphiniums), Sunflowers, mid-season Peas, Tomatoes, Celery, Celeriac and Savoys to be tried at the Royal Horticultural Society's Gardens should be sent to the Director, Royal Horticultural Society's Gardens, Wisley, Ripley, Surrey (station for goods, Horsley, London and South Western Railway) before January 31, 1916. Those intending to send these flowers and vegetables for trial should apply for the necessary entry forms as soon as possible.

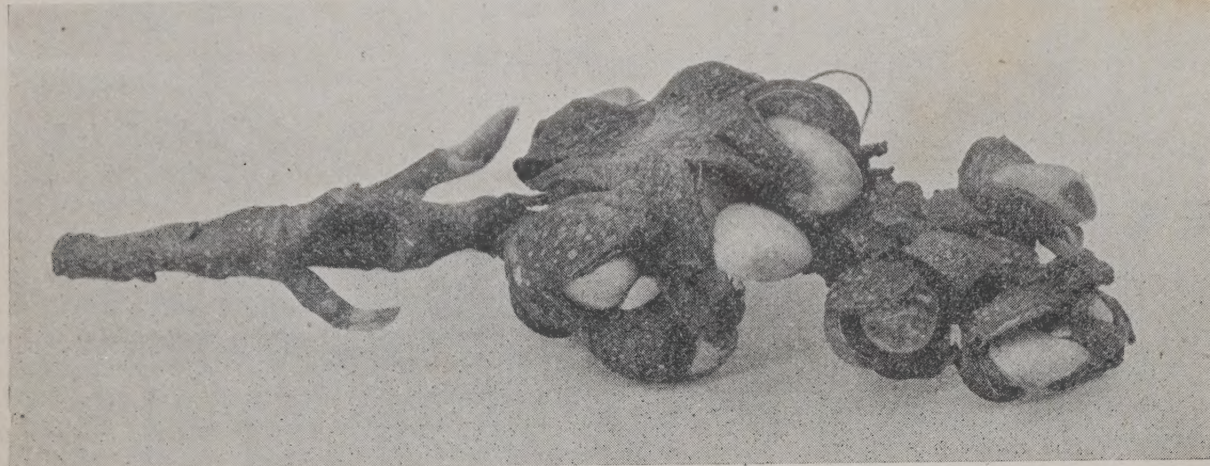
A Winter-Flowering Cherry.—*Prunus microlepis* var. *Smithii*, or *P. miqueliana*, is a Japanese Cherry of considerable interest, from the fact that it blossoms in midwinter. During spells of mild weather the white, faintly tinted flowers, which are semi-double, open from November until February. It promises to make a small tree of value for planting in sheltered positions, and may prove useful to cultivate in tubs or to plant in the borders of cool conservatories.

Chrysanthemums at Camphill Winter Garden, Glasgow.—The usual display of large-flowered Chrysanthemums in the Winter Garden at Camphill, in the Queen's Park, Glasgow, has been injuriously affected by intense and prolonged fogs; but an effective show has been made, all the same, to the great pleasure of the public. Huge blooms are not aimed at. The plants of the large-flowered varieties—mostly Japanese—are effectively grouped in the large Winter Garden. Novelties are not much sought after, but a representation of the best varieties are excellently cultivated by Mr. M'Iver and his staff.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Enquiry.—I have raised a quantity of seedlings of *Silene Asterias grandiflora*. Is it a plant worth growing, and what are its cultural requirements?



THE CURIOUS FRUITS OF MAGNOLIA LENNÉI.

It is not mentioned in any gardening book that I possess, hence my reason for troubling you.—I. BIGG-WITHER. [We are not acquainted with a plant under this name. Can any of our readers oblige with information?—ED.]

Wall Garden Plants.—On page 602, issue December 11, Mr. Thomas Smith gives lists of plants suitable for wall gardens. I notice he has omitted *Cerastium Biebersteinii* and *C. tomentosum*, also *Sedum acre* and *S. album*. These four plants are highly useful for dry-wall gardens, especially near towns, for they grow and flower freely with very little care.—E. T. E.

English v. Latin Plant Names.—Mr. Birch's rendering of the neat satire on botanists (page 598, December 11) is no improvement on the original, and does not scan. The true version runs:

"A Primrose by the river's brim
Dicotyledon was to him,
And nothing more."

—HERBERT MAXWELL, *Monreith*.

The Four Best Dessert Apples.—I should like, if I may, to make one or two criticisms on the above article, which appeared in *THE GARDEN* of November 13. It is doubtful if any half dozen gardeners could be found who would agree that the varieties enumerated are the best. No mention was made of the difference of flavour in any given variety when grown on a heavy or a light soil. I venture the assertion that were an expression of opinion among fruit experts taken on this subject, Apple Ribston Pippin would be among the first four, but for some reason "W." did not mention it. Again, "W." says his selection will give a supply from October to January. Perhaps so; but why begin with October? By including Worcester Pearmain or James Grieve in place of St. Edmund's Pippin, there would be a gain of another month, for both of these varieties are ready in September. Earlier than this it is hardly necessary to go for amateurs. The two substitutes given are very reliable croppers and admittedly good dessert fruits, especially James Grieve. How will the following four varieties do? James Grieve, Cox's Orange Pippin, Ribston Pippin and Adam's Pearmain. The latter will provide fruit until the end of February and on into March.—C. TURNER.

The Fruiting of Uncommon Shrubs.—I saw a short note in *THE GARDEN* of December 18 on the fruiting of *Xanthoceras sorbifolia*, and it may perhaps be of interest to you to know that this plant has also fruited in the open at Nymans in 1915. Perhaps of even greater interest is *Davidia involucrata*, which flowered for the first time since it was planted fifteen years ago.

Fruit has formed upon it this autumn, and also upon *Embothrium coccineum*, which flowered for the first time in the open in the garden here. It would be of great interest to me to know if it flowered previously in the open in Sussex.—MURIEL MESSEL, *Nymans, Handcross, Sussex*.

— I have been greatly interested in the many recent notes in *THE GARDEN* drawing attention to uncommon shrubs that are fruiting with so much freedom. Never before had I seen the curious fruits of *Magnolia Lennéi*, of which I enclose a photograph. The seeds are of a reddish colour and about the size of a garden Pea, each having a white silk-like thread at its base. This *Magnolia* is a garden hybrid from *M. conspicua* and *M. obovata*. It was raised half a century ago, it is still very little known.—HURSTGATE.

"Dwelling in a Land of Roses."—One dull day I spent my time looking over back numbers of *THE GARDEN*. Taking the volumes up more or less at random, I looked through 1883-6-7-8. After all, it is a good plan to revert to the old masters once in a while. The enclosed quotation impressed me, and, if you agree, I think it would do no harm to reprint it and perhaps find out how many of your correspondents will recognise it. "Dwelling in a land of Roses, in a land where the woods and lanes and hedges are clothed at summer-tide with Roses, they prefer the stolid conviction that the stars in their courses fight against them, that meteorology and geology are their bitter foes."—THOMAS N. COOK, *Boston, Mass.*

The Hanbury Garden at La Mortola.—In reading Mr. G. Frederic Lees' interesting notes on the Hanbury Garden at La Mortola, memories carry me back to the late owner's paternal garden at Clapham, which is also referred to, where Mr. Daniel Hanbury managed to indulge his tastes as a pharmacist in the experimental growing of some out-of-the-way plants, among those of ordinary garden culture. I remember on one visit seeing, on a vacant piece of wall under the shelter of a bushy Rose, a fruit-bearing specimen of *Thladiantha dubia*, a Cucurbitaceous plant of India and China; while other curious or rare plants occupied odd corners or spaces in other parts of the garden. May I, further, make a correction to Mr. Lees' reference to the late Mr. J. G.

Baker? Happily, Mr. Baker is still with us and residing at Kew, as will be proved from the fact that I had a letter from him only two days back, in which he says he is still able, at the age of eighty-one, to get out on fine days.—JOHN R. JACKSON, *Claremont, Lympstone, Devon*.

Raising Hardy Cypripediums from Seed.—I would be most grateful if you could kindly give me any information about raising hardy *Cypripediums* from seed. In other years I have simply scattered the contents of the pods round the plants (as I believe I read somewhere that the seed germinated only when sown over roots of its own species), but have never had a seedling. I now have good seed of *C. pubescens* (which grows well here), and I would like to try to raise it from seed. Do you advise sowing in a cold frame or vinery? Any directions as to soil, &c., would be gratefully received.—H. M. B., *Duns, Berwickshire*. [The most likely method that we can suggest is to prepare a pan of suitable compost, scatter the seeds lightly over the surface, cover with a thin layer of chopped sphagnum moss, and then place the pan in a cold frame, keeping the surface of the moss moist, and await events. *Cypripediums* have been successfully raised in this way, we believe, in Messrs. Cutbush's nursery. The great thing is to sow the seeds under suitable conditions and then prevent them from being disturbed, and these conditions are not always secured when seeds are scattered round the parent plants out in the open. One of the plants might be placed in the cold frame and the seeds scattered about it. The seeds might also be tried on the surface of other pots which will not be disturbed until the seedlings have a chance to appear. It is essential that, after sowing, the compost is not allowed to become dry; this is one of the chief causes of non-success with such minute and delicate seedlings as *Orchids*.—ED.]

When to Plant Asparagus.—"W. L. L.," page 604, issue December 11, in his notes on giant Asparagus, appears to be in a dilemma as to whether one, two or three year old plants are best. He also says, from one year old plants cutting commences four years after planting, the fifth year giving a full crop. From experience of the various methods of planting one, two or three year old plants, I am positive one year old plants will produce much the best results if the proper treatment is given them. Sow two seeds in sandy soil in pots 3½ inches in diameter in a cold frame in April. Keep the soil moist and shaded from bright sun until the plants show through the soil; then give air freely to encourage stocky growth. If both seeds grow, thin to one. When the plants are well established, plunge the pots in ashes at the foot of a north wall, where they can remain till the growth has ripened off naturally. At no time during the growing season should the plants suffer from want of water at the roots. A sprinkling overhead in the evening will encourage progress after a hot day. Store the plants, still in the pots, in a cold frame until the first week in April, when they should be put out into their permanent site. A trowel only will be required to plant the roots. No making of trenches is necessary, because the roots occupy so small a space as compared to two or three year old plants grown in the ordinary way. The third season growth should be sufficiently vigorous to enable several free cuttings to be obtained, while during the fourth abundant crops can be had.—E. M.

White Foxgloves.—In a short note on Foxgloves in THE GARDEN for December 11, page 603, the well-known *Gloxiniæflora* group is mentioned, and this sentence occurs: "The bells are white, with dark spots on the inside of the segments." I have always understood that the above group included coloured forms of various shades as well as white. The statement in the note is incorrect, for it would lead anyone to suppose that the *Gloxiniæflora* are confined to white forms only. Again, having paid a good deal of attention to white Foxgloves for a considerable number of years, I have come to the conclusion that the whites, when they are spotted inside, have a distinctly dirty appearance in a mass in comparison with the unspotted or perfectly pure ones, and that the more marked they are, the dirtier do they look. The object of the seed merchant should be to obtain a perfectly pure white strain, and leave the *Gloxinia* markings to the coloured forms.—JOSEPH JACOB.

The "Daffodil Year Book."—Mr. Engleheart's and "Novice's" remarks on the photographs in the "Daffodil Year Book" are, I am afraid, not those of experienced photographers. In the first place, "Novice" does not define what he means by "colour screens." Colour screens are not used except in colour photography and occasionally with pan-chromatic plates, but the latter are very little used for ordinary work. An orthochromatic screen is frequently used in flower photography, and it is probably the use of the latter (or a non-screen plate), together with over-exposure, that reduced the yellow Daffodil to an absolute white. Mr. Engleheart hopes that in future the editor of the Year Book will contrive that the colours of flowers with a red cup on a white or yellow perianth be suggested in black and white. It would be impossible to suggest them in anything else than black and white or black and grey, as red will photograph black or nearly so, whatever plate or screen is used.—G. W. LEAK.

Actinidia chinensis in an Exposed Position.—In answer to your correspondent "B., Weybridge," who writes regarding the culture and situation suitable for this interesting *Actinidia*, I may say that there are a number of plants in different parts of the gardens here, and, strange to say, the one which I always consider is in the most exposed position is the one that seems to do best. [This is in accordance with the experience of others.—ED.] It is planted against a wire trellis on a border facing north, and at the same time is exposed to the prevailing westerly winds. This season the growths measured quite 12 feet in length. Another plant is on a wall with a southern exposure, and, while doing well, has never been quite so vigorous as the one on the fence. The soil here is very heavy and damp, and it seems to suit them, as, with the exception of some leaf-mould and sand, which was incorporated with the soil at the time of planting, this is all they have to work on. I believe your correspondent is right in attributing the trouble to drought, and would be well advised to lift the plant during the spring months and replant it in soil made up of a more retentive nature, such as heavy loam with a mixture of bog peat and leaf-mould.—JAMES MCGRAN, *The Gardens, Coodham, Kilmarnock.*

Does it Pay to Grow Vegetables for Exhibition?—I think your correspondent on page 598, issue December 11, has taken the very extreme ends to meet his view. Yes; experience has taught me it does pay. Suppose we reverse the

subject and say we want to realise the very best market prices. To do this we have to grow vegetables to perfection. Such produce never fails to find a market, and, by watching for the best, we have all the good points required for exhibition. Two things that would not pay would be boring for Carrots and growing 2lb. Onions when four Onions weighing 2lb. would have a better sale, although for private use in a large kitchen the larger Onions are never complained of. Let us consider Mr. J. Smith's piece of ground (15 feet by 4 feet 6 inches). Now, in my opinion sixty Lettuces is the outside limit that would grow to be worth anything for ordinary use. In addition, as I plant, it would take forty Leeks, or thirty for exhibition. The first would bleach 9 inches, the second 12 inches to 14 inches. As Mr. Smith has taken the Leek, one of the most troublesome vegetables to grow for exhibition, I should like to take the Potato, the most important. My garden with the usual cultivation yields 2 bushels to the perch. This year I grew 1½ perches of Potatoes specially for exhibition. Instead of drawing rows, trenches were thrown out with the spade. Two good barrow-loads of stable manure were well trodden in, and a good dusting of soot and earth put back so as to have the sets 3 inches to 4 inches deep when covered. They had a good dusting of Potato manure just before earthing. When the crop was taken up, I selected 6 gallons to wash for my exhibition selection, and I could not quite clear the rest in 5 bushels. My gains were 3 bushels of first-rate Potatoes at the extra cost of stable manure, 1s.; soot, 6d.;

A GOOD TOMATO FOR OPEN-AIR CULTURE.

OWING to the unreliability of our summers, the question is continually cropping up, "Which of the many excellent varieties now finding a place in most seedsmen's lists at a popular price is most dependable for cultivation in the open air?" and readers having any considerable experience to guide them will agree that the question is not so easy to decide as one would imagine, for it should be borne in mind that to be really satisfactory a Tomato should have other qualities than size of fruit or even good cropping powers to recommend it, it being an acknowledged fact that the flavour, texture and shape of many fruits, even among those of recent introduction, gathered from plants in the open air, often leave much to be desired.

For many years past it has been my custom to grow at least half a dozen plants of as many varieties in the open air, purposely to test the all-round qualities of each; and in order that there shall be a fair field and no favour, the seed of these is sown on the same date, early in March, and identical treatment given throughout the season.

These plants are selected from a large batch towards the end of May, by which time each has well filled a 5-inch pot with roots, and as a rule the majority carry at least one truss of fully expanded flowers. Last year, which in the opinion



A GRAND CROP OF TOMATO MONEYMAKER GROWING ON A SOUTH WALL.

Potato manure, 1s.; extra labour (man and boy, two hours each), 1s. 6d.; total, 4s. That is my experience in growing all kinds of green crops, Peas and Beans; and, in fact, I do not think I could leave anything out that will not do better for extra cultivation, whether for market or exhibition.—G. ANDREWS, *Chairman, Tilmanstone Gardeners' Society.*

of many was not exactly ideal for this crop, our plants did exceptionally well, not a weak grower, shy seeder or diseased plant among them, the last ripe fruit being gathered on October 24, from a plant which ripened its first fruit during the third week in July.

It has been most interesting to note the difference, not only in the number of fruits, but in the

size and formation of the bunches, and Messrs. Dickson and Robinson's Moneymaker, a favourite of mine, produced a crop equal to any I have ever seen.

The accompanying photograph, taken in August, will give readers a very good idea of the immense crop the plants carried, and I may add that in no case did the height of the plants exceed 4 feet, yet every one carried at least five bunches, many of these having more than a dozen fruits. These were exceptionally firm, of good shape, and a beautiful deep red colour; while it was often remarked that the flavour was equal to that of any fruits we had picked from plants grown under glass.

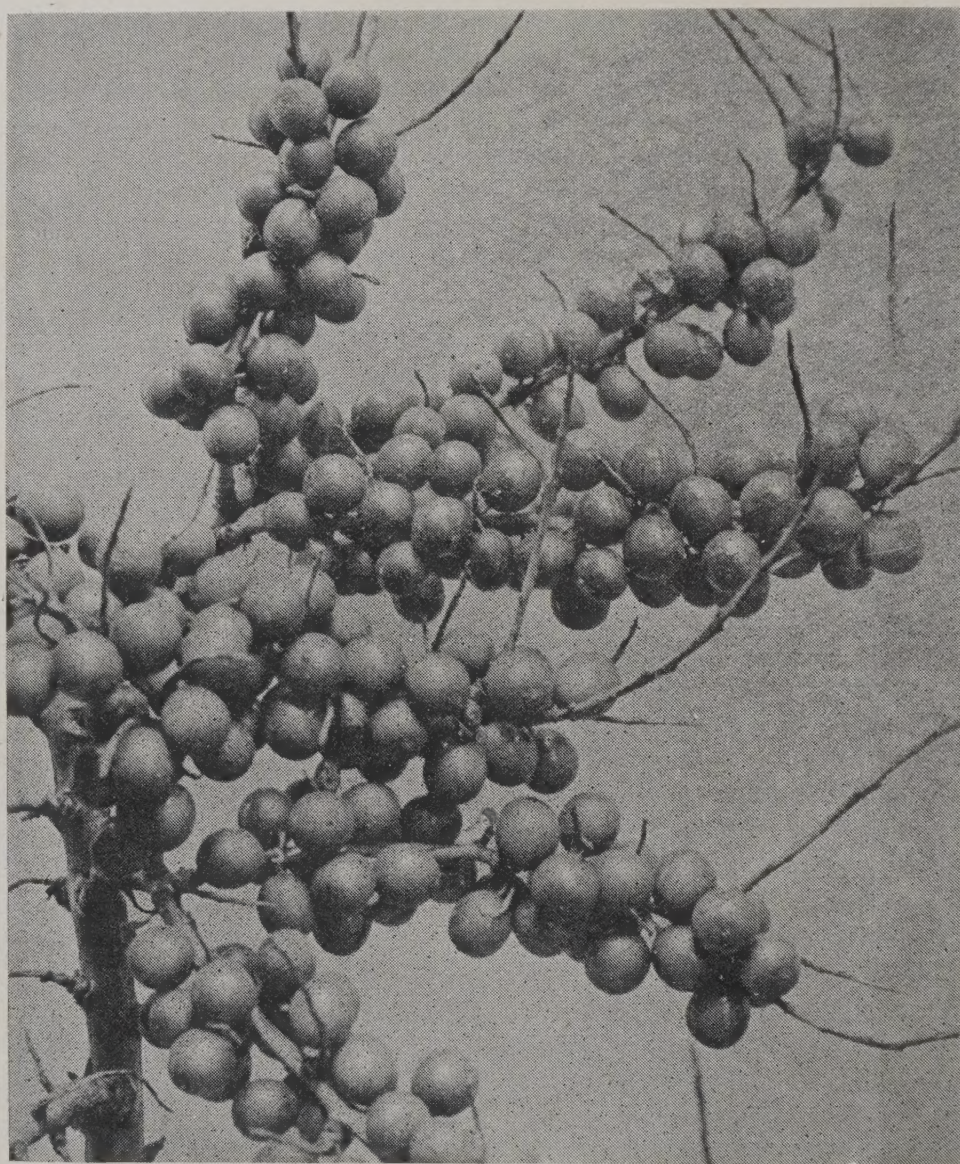
Several others gave us very heavy crops; but my experience of Moneymaker last year leads me to think that when compiling a list, either for indoors or out, it may be included with confidence. F. R. CASTLE.

PEGGING DOWN ROSES.

IF one observes a wild Briar in bloom in the hedgerow, some growths will be found bent over almost rainbow fashion and smothered with flowers. This is exactly what the rosarian tries to imitate when the cultivated Rose is pegged down. In place of a lot of tall growths that never bloom, bend them over, some horizontally, others in the shape of a half moon, the sap being checked as it flies to the buds, or "eyes" as they are called; shoots then start out and are usually crowned with flower-buds. It follows that by such an arrangement as this, economy is practised, for fewer plants are required in a bed, and one may be certain of an even growth with an abundance of flowers. Suppose one has a bush of Gloire de Dijon or William Allen Richardson. Examine it and see the vigorous young growths that have been made this season. Next April, instead of pruning such growths back, bend them over as horizontally as possible, although the half moon shape will answer as well. This may be accomplished by driving wooden pegs into the soil, these pegs to have a notch at the end, to which a piece of tarred twine is secured. The shoot is bent as described and the string tightened accordingly. Pliable growths are necessary, and they should be selected as close to the base as possible. Where old plants exist and they are too rigid for pegging down, cut them level with the ground in February, and then peg the new growths as they become long enough. Roses may be partially pegged, that is, peg one long growth and let the others develop in upright bush form. As soon as the flowering is over, the pegged growths should be cut away, as by this time new shoots will be springing from the centre of the plant, which will

be pegged the following season. This pegging down may be used as a

Means of Propagation.—If the growth is of sufficient length, layer it as one would a Carnation. Take the growth in the left hand and cut a slit in one side about 1 inch in length and 15 inches from the end. Make a niche in the soil and bend the shoot into it, with the cut portion placed at the bottom of the niche, and the end of the growth sticking out 2 inches or 3 inches. Press the soil firmly and leave the shoot to form roots, which it will do in about twelve months. While thus bent, flowers will appear just the same as though not layered. Place a little sharp sand in the niche near the cut slit. Plant the Roses about 6 feet apart, and peg the growths to the



A WELL BERRIED SPRAY OF SEA BUCKTHORN (HIPPOPHAE RHAMNOIDES). THE FRUITS ARE UNTOUCHED BY BIRDS.

north, south, east or west, whichever seems best for the individual plants.

Varieties.—Those recommended are Gloire de Dijon (one of the most popular of climbing Roses), William Allen Richardson, General Jacqueminot, Charles Lefebvre, Crown Prince, Boule de Neige, Ulrich Brunner, Mrs. John Laing, Hugh Dickson, Clio, Snow Queen, Mme. Isaac Pereire, Prince Camille de Rohan, Baron de Bonstetten, Alister Stella Gray, Celine Forestier, Bouquet d'Or, Kaiserin Friedrich, Gustave Regis, Mme. H. Leuilliot, Grüss an Teplitz, Mme. Abel Chatenay, François Crousse, Billiard et Barre (the most striking of yellow Roses), Mme. Wagram and M. Desir. Where bold effects are required with Roses, this plan of pegging down has much to commend it.

SEA BUCKTHORN AND SPINDLE TREE.

THE Sea Buckthorn (*Hippophaë rhamnoides*) is one of our most attractive berry-bearing shrubs or small trees. From a decorative standpoint it is an important consideration that the fruits are never eaten by the birds. Very thickly clustered on the branches, they gradually soften and decay, but usually not until the New Year is some weeks old. The Sea Buckthorn is a native of Europe and Asia, including Britain. In summer the greyish green leaves are distinct, and in autumn the orange yellow fruits claim attention. As the Sea Buckthorn is unisexual, it is necessary to plant specimens of both sexes together,

the proportion of four to six of the female to one of the male being satisfactory. Seeds and layering are the methods of propagation, the latter being preferable, one is then able to distinguish the sexes before flowering.

The Spindle Tree (*Euonymus europæus*) is another well-known British shrub with very attractive fruits. It is deciduous, and grows from 6 feet to 20 feet in height. It is a fairly common plant on chalky hills, and many a hedgerow is resplendent in autumn and early winter with its coral red fruits, in which orange-coloured seeds are enclosed.

THE TWO COMMON OAKS.

THE two varieties of the common Oak are easily confused, but they have some distinctive utilitarian qualities which are worth noting. The commoner, or pedunculate variety is far more spreading in its branches than the sessile-fruited "Durmast," which differs botanically from its neighbour in having acorns with little or no stalk. This former characteristic makes the latter a more suitable tree for hedgerows, just as the English Elm is superior to the Wych, for the same reason.

There has been difference of opinion as to which produces the better timber, but, as Loudon suggests, perhaps this depends more on soil and growth than on any specific difference between the two trees. The Durmast seems to be the only British Oak which will grow on poor soil, though one may find it growing side by side with the commoner variety where better soil prevails. One of the most striking features about the timber of Durmast is its capacity for taking a fine green natural stain, produced by fungus, though it is reddish by nature, another distinction between it and the whiter kind.

Both kinds are associated with deep and heavy soil, but the sessile kind is more adapted for thin and hilly ground than its close relation. Deep, sandy soils suit the Oak also, though the timber is not the best in this case. T.

THE GLADWIN OR SCARLET-SEEDED IRIS.

THERE are only two wild Irises in this country, viz., *I. Pseudacorus*, the Yellow Iris or Water Flag, and *I. foetidissima*, known by various

and the former is now styled *T. lanceolata*. It is quite common in Devon and Cornwall, and large bushes 10 feet or more in height and almost as much through are a glorious sight in early June when glowing with their drooping, crimson flowers, hanging from long peduncles. It often bears



SCARLET-SEEDED PODS OF THE GLADWIN (*IRIS FOETIDISSIMA*).

names, including the Gladwin or Scarlet-seeded Iris. At this season the Gladwin is worthy of special notice by virtue of its pods, containing bright coral red seeds. On this account the Gladwin is unlike all other Irises, and it cannot be mistaken. The seeds are about the size of small Peas, borne in rows within three-lobed pods, which in December gape open and display the full beauty of the highly coloured seeds. In country districts where this Iris abounds, it is not uncommon for the scarlet-seeded pods to be extensively used for church decoration at Christmas, while many a village home is made the brighter by the presence of this wilding. It is hard to understand why this native Iris is so much neglected as a garden plant. It is of easy culture, and is a most desirable plant for the wild or semi-wild garden. C. Q.

SOME BEAUTIFUL CHILIAN PLANTS.

BY WYNDHAM FITZHERBERT.

Mutisia decurrens is a very rare climber, but is not as tender as is generally supposed. A specimen planted in a position exposed to every wind at Edinburgh has done exceedingly well. In its native country it is said to grow through low bushes and flower on their tops, this pointing to the desirability of affording the growths shade by associating it with some other climbing plant. Here in South Devon it is grown with another Chilean plant, *Berberidopsis corallina*. This association has proved a complete success, the great, brilliant, single, orange flowers of the *Mutisia*, 4 inches across, almost scarlet in the sunshine, being followed in the autumn by the crimson, globular blossoms of the *Berberidopsis*.

Tricuspidaria lanceolata.—This Chilean shrub was formerly known as *Crinodendron hookerianum* and, after that name was discontinued, as *Tricuspidaria dependens*. Lately, however, a white-flowered shrub has been introduced from the same country to which this title has been assigned,

seed in the South-West. It will flower in a very small state, plants under a foot in height bearing blossom.

Tricuspidaria dependens.—This bears drooping, bell-shaped flowers, pure white in colour, with a prettily fringed, open mouth. It is an extremely rapid grower, and there is a plant about 20 feet in height at Carclew in Cornwall. For effect, however, it cannot compare with *T. lanceolata*.

Philesia buxifolia.—This is a very pretty dwarf Chilean shrub, bearing drooping, pink, *Lapageria*-like blossoms. It rarely exceeds 18 inches in height, and is very free-flowering, quite small bushes often carrying thirty or more large blooms. It thrives best in a soil of sandy peat. It is very tenacious of life, a piece of the root left in the ground after the removal of a plant to another site having been known to form another bush in a few years. The finest specimen of this

plant in England is probably that in the Abbotsbury Castle gardens. It is 5 feet across and 2 feet 6 inches high, and bears hundreds of flowers.

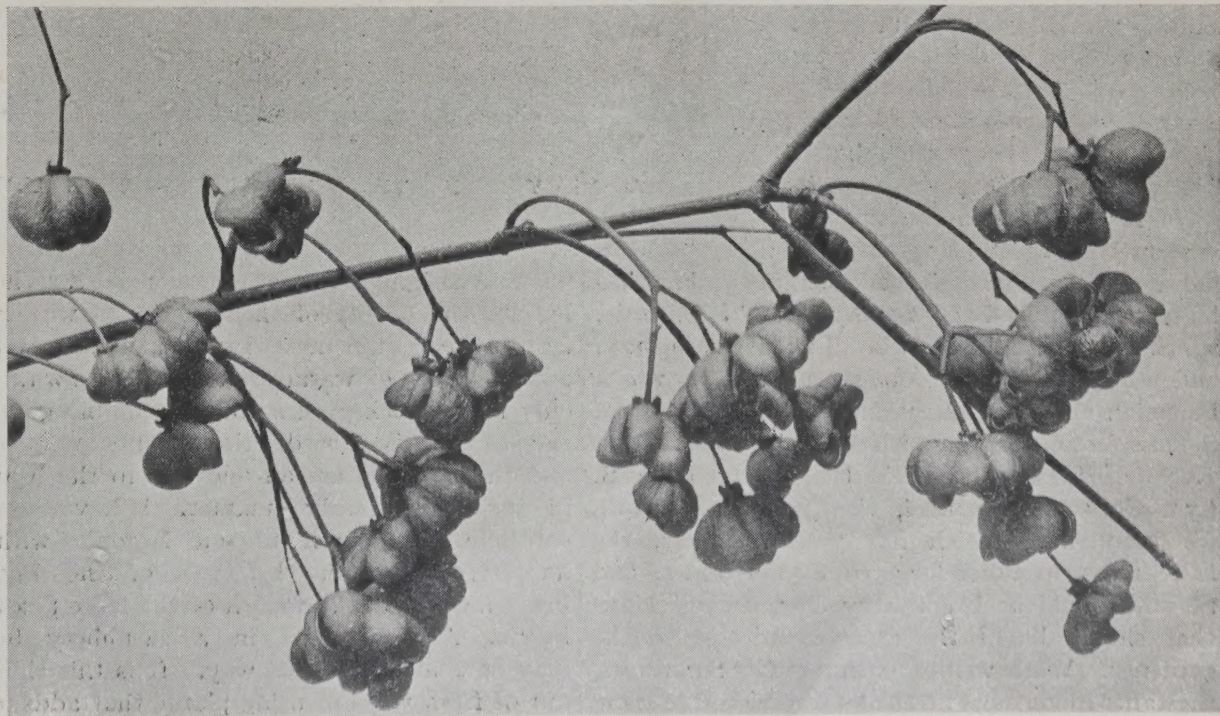
Mitraria coccinea.—This is a native of the Island of Chiloe, off the coast of Chile, said by Darwin to be one of the wettest spots in the world. It is an extremely handsome shrub, bearing brilliant scarlet, pendent flowers about 2 inches in length during the summer. It should have copious supplies of water in dry weather, and be heavily syringed every evening.

Berberidopsis corallina.—This is a very pretty climbing shrub, quite distinct from anything else in our gardens. When growing freely the evergreen foliage is very ornamental, but it is the flowers which form the most striking feature of the plant. They are bright crimson, globular, and hang on long, slender stalks in little clusters from the upper parts of the shoots.

Drimys Winteri.—This is stated to be a South American shrub, and may, therefore, be a native of Chile. It is attractive in appearance when in bloom, bearing ivory white blossoms 2 inches across and sweetly scented. It is quite hardy, having endured a frost which killed all the shrubby *Veronicas* in a Devon garden.

Lapagerias.—These are quite hardy in Devon and Cornwall, and when planted in peat against a north or north-west wall bear flowers in the autumn and winter until Christmas. Bloom-trails cut from the open in November are often quite as perfect and beautiful as any produced under glass, and large plants covered with pure white or rosy flowers are a charming sight.

Tropæolum speciosum.—The Flame Nasturtium, as this climber is called, is, like the *Lapageria*, a native of Chile. It is perfectly at home in Scotland, where it revels in the damp air and is quite a weed; but in the hot South it often proves difficult to grow. Instances of success in the South are generally where it has been planted among shrubs, such as *Rhododendrons*. In one case where it has done well, in a Devon garden, it is planted in a hedge of *Berberis stenophylla* bordering a lawn. This hedge is in the spring a sheet of golden orange. After the blooms have withered, the flowering shoots are cut back and the *Tropæolum* spreads over the whole hedge, affording a glorious picture during its blossoming period, when it forms a cloud of vivid vermillion.



FRUITS OF OUR NATIVE SPINDLE TREE (*EUONYMUS EUROPEUS*).

THE SAXIFRAGES IN WINTER.

THE rock garden owes much of its winter beauty to the Saxifrages, which in their varying shades of green mantle the stones with their cushion-like growth. This phase of the Rockfoil, as the Saxifrage is popularly called, is too often little considered, and the moss-like character associates well with the early Snowdrops and Crocuses. *Saxifraga hypnoides* is the most familiar—dense green in autumn and winter, and starred over with white flowers in spring. It is a Saxifrage for the town as well as for the country garden, thriving to perfection in the small rock garden of the suburban villa, whether in shade or exposed to the full sun. It is a mistake, as a rule, to plant this group in very sun-baked corners, the plants dying off in the centre and losing that fresh green colouring which reminds one of the mosses in the woodland. Plant the Saxifrages near to stones, over which they soon lap, drifts of verdure, which receive from this association the necessary moisture for their full development.

A charming kind is the native *S. aizoides*, which loves the margins of streams or any wet places. In many gardens there are ditches or stream edges where this beautiful little Saxifrage should find a place. It is a plant also for the alpine-house, in which many of the smaller flowers for rock gardens are seen to the best advantage, receiving protection from the weather. *S. aizoon*, *S. Andrewsii* and *S. aretioides* are three beautiful species, and *S. burseriana* is even more so, being one of the first to greet the spring, the flowers appearing even in January. This is another kind that should be grown in the alpine-house, and when to be planted in the rock garden, place it in the soil between sandstone. The flowers are large and white, and their purity is intensified by the slender reddish stalks, which are not more than 3 inches above the dense silvery tufts. The finest form—and there are several varieties—is called *major*; it is similar to the parent, but has larger flowers. *S. burseriana* is a Saxifrage for the greenhouse or even a window-box, as it grows freely in a light, well-drained soil. A Saxifrage that has been well described as "Silvery Moss" is *S. cæsia*, which is seen on the Alps in all its native beauty, and a little alpine for the greenhouse, in which its minute beauty is under close observation. *S. cæspitosa*, *S. oppositifolia*, the Stag's-horn Rockfoil (*S. ceratophylla*), the pretty little *S. Cymbalaria*, *S. Fortunei*, the Juniper Saxifrage (*S. juniperina*), which has yellow flowers, the little mossy, reddish-flowered *S. muscoides*, and *S. sancta*, of the brightest yellow, are all kinds that should be of the greatest interest to the gardener. While writing of the smaller Saxifrages, the taller kinds must not be forgotten, and of these *S. longifolia* is the most beautiful. It comes

from the Pyrenees, and has greyish, leathery leaves which form a silvery rosette about 8 inches across, and in summer the corymbs of white flowers give beauty to the rock garden. Perhaps it is seen to the greatest advantage in a chink on the face of a rock, the plant requiring to root deeply; or it may be placed on an old wall in which similar conditions exist, very little soil being needful for its welfare. It should also be grown in pots, for which it is well adapted, especially in the neighbourhood of large cities, the damp and dirt spoiling the colouring of the leaves. The variety of it called *pyramidalis* is even better known than the type.

A noble group of Saxifrages is that comprising the kinds known as Saxifraga or *Megasea cordi-*



A VERY EFFECTIVE GROUPING OF DOUBLE PINK HOLLYHOCKS.

folia, *crassifolia*, *purpurascens* and *Stracheyii*; but for the beauty of their foliage in winter the first two are the most striking, as the foliage assumes tints of warm crimson and brown. Not only in the rock garden, but at the margins and ends of the mixed border these plants are in place, and their flowers are an addition to the beauties of spring and early summer. I have seen *S. cordifolia* mixed with tuberous Begonias with the happiest effect, the legginess of the Begonia being hidden by the wealth of the large Saxifrage leaves. A rich effect in a shrubby border may be achieved in this way. It is this thinking out of fresh ways of using plants that adds to the interest of the garden at all seasons.

HOLLYHOCKS IN COTTAGE GARDENS.

THE Hollyhock has been a favourite flower among cottagers almost from the time of its introduction from China in the latter half of the sixteenth century. Less than sixty years ago there were special Hollyhock societies, and in many parts of the Midlands Hollyhock shows were held at the inns of villages and country towns. The double blossoms were invariably staged in paper collars and show boxes—a somewhat absurd practice still applied to Carnations and florists' Tulips when dressed for show purposes.

As is the case with many other garden flowers that are subjected to high cultivation, the Hollyhock became the victim of a disease which wrought great havoc by destroying the foliage. Within the last two years, at least, the disease has been less virulent, and there seems a possibility that the Hollyhock will regain some of its old-time popularity. It may be mentioned that seedlings are less liable to disease than either cuttings or divisions of the old roots. Seed may be sown as soon as it is ripe, and the seedlings should be wintered in cold frames, giving them plenty of air and little water. For flowering the same year, Hollyhock seed should be sown in heat in the early days of January. H. C.

SOME BEAUTIFUL DOGWOODS.

DURING the latter part of January until early in March, just at the time when the golden beauty of the Witch Hazels is waning, the Cornelian Cherry, or Cornel (*Cornus Mas*), opens its small, curious yellow flowers. It forms a strong-growing, spreading bush some 15 feet to 20 feet high, and, like other members of the family, will thrive in almost any garden soil. *Cornus alba*, a native of Northern Asia, is the white-fruited Dogwood, and is appreciated chiefly for the red colour of the bark, which forms a conspicuous feature in the winter landscape. Two excellent varieties of it are in commerce, viz., *C. a. Späthii* and *C. a. sibirica variegata*, both being grown for the sake of their foliage, which

is very handsome during late spring and summer. The first named has beautiful golden variegated leaves, and those of the latter have a silvery colouring. Both these varieties are ideal plants for filling large beds on lawns. It is necessary in the case of plants in beds to occasionally shorten back the growths to keep them within bounds, and this should be done in late winter and spring by cutting the encroaching shoots right to their bases; a clipping over of all the shoots ought never to be done, or the shrubs lose all their natural grace and beauty. Almost any soil that has been well dug will suit these two ornamental Dogwoods. They may be planted about 3 feet apart each way any time in late autumn or early spring.

LUPINES AND THEIR CULTIVATION.

LUPINES are among the easiest of all hardy plants to cultivate, and although they show preference for warm, light soils, they may be grown in almost any garden. It is usual to sow the seed in spring. The Tree Lupine (*Lupinus arboreus*), with its fragrant yellow flowers, is seen to best advantage when grown

It is always advisable to save seed from the best-coloured golden yellow varieties, but even this precaution may result in seedlings producing flowers of a dull purple, mauve, French grey, lavender, buff, bronze, or even a mixture of yellow and white or mauve and white. It should be remembered, however, that cuttings of the Tree Lupine root quite readily in the open ground, and by this means the best-coloured varieties may be kept true. Like other Lupines, it shows a preference for light, open soils; while it is an admirable subject to grow in association with

A BLUE-FLOWERED WINTER GREEN-HOUSE PLANT.

PYCNOSTACHYS DAWEI.

THIS, a Central African plant, is worthy of attention by those who desire to keep the conservatory gay with flowers during winter, for it produces rich blue flowers in dense heads from the points of the shoots during December and January. Growing from 3½ feet to 6 feet high, its height may be largely determined by the number of times the points are removed from



AN EARLY SUMMER BORDER BRIGHT WITH LUPINES IN MANY SHADES OF COLOUR.

in a wilder part of the garden and allowed to grow unchecked. Nothing can be more picturesque than large plants from eight to twelve years old, if they can only be induced to attain that age. The flowers are almost always sweetly scented, but it cannot be said that they are invariably of good colour. It almost seems as though the Tree Lupine has been influenced by the perennial varieties in regard to colour, for mauve-tinted flowers are by no means uncommon. The predominant colour is unquestionably yellow, but the shade may vary from pale lemon to rich gold.

sun-loving plants, such as Poppies, Columbines and Rock Roses. As the Tree Lupine has an unhappy way of dying suddenly after attaining an age of two or three years, and as it may be killed by frost in severe weather, it is advisable to always have a few seedlings in hand. Of the perennial Lupines, the varieties of *Lupinus polyphyllus*, chiefly dark blue, are undoubtedly the best. They include *grandiflorus*, *macrophyllus*, *alba* and the handsome *Moerheimii*. The last named produces spikes of rose and white flowers in profusion all through June.

the shoots in summer. It may be propagated by cuttings of young shoots inserted in sandy soil in heat in March. The young plants are grown on rapidly in soil similar to that provided for *Chrysanthemums*, care being taken to stop them now and then to induce a bushy habit. Towards the end of June they may be placed out of doors, where they can remain until September. They may then be removed to an airy greenhouse and gradually given more heat as the flower-heads appear. A minimum temperature of 45° to 50° will be suitable at flowering-time.

A HANDSOME GREENHOUSE CLIMBER.

TIBOUCHINA SEMIDECANDRA.

As this plant, with its large violet purple flowers, is of a rather straggling habit, it is best adapted for training up a wall or pillar or draping a rafter in the greenhouse. When planted in such positions its cultivation presents no difficulty. When it has filled its allotted space, it requires little attention beyond pruning back during early spring, and regulating and tying the shoots during the growing season, when one should be rewarded by a profusion of flowers from the beginning of September until the end of December.

Cultivated in pots, more care is required to produce good results. Cuttings of half-ripened wood, which root readily, should be inserted in a warm propagating-case during spring. When rooted, they must be potted singly into 3-inch pots,

PLANTING FRUIT TREES.

THE planting of fruit trees is an important item at this season of the year, and no time should be wasted as soon as the trees arrive from the nursery. All kinds of fruit trees delight in a thoroughly well drained soil of medium texture, and that in which no fruit trees have ever grown. Trenching deeply and breaking up the subsoil to allow water to pass through freely and adding decayed manure, if needed, is preferable; and when once done well and the trees carefully planted, they should grow away freely and quickly become profitable. But, unfortunately, opportunities for such operations on a large scale do not occur in all cases, and the best must be done according to the means available. It is well to make a good selection of the kinds required for the

known, be included in almost every collection. Fearn's Pippin and Duke of Devonshire succeed well with us. The names mentioned are not given as a complete list, but only those of trees I have, and which many other gardeners have proved very reliable and useful for keeping up a supply of serviceable fruits till very late in the season.

Wrotham Park Gardens. H. MARKHAM.

STACHYS GRANDIFLORA.

ONE of the best known species of the Woundwort family and most often seen in cultivation is *S. lanata*, commonly called Lamb's Wool on account of the whole plant being enveloped in a dense coating of white woolly hairs. It is frequently used as an edging plant, for when out of flower its height does not exceed 4 inches. Another good plant is the one illustrated, *S. grandiflora*, a native of Asia Minor. It is of robust, erect habit, growing from 18 inches to 2 feet high, well furnished with deep green foliage, and bears large heads of rich purple flowers in May and June. As a border plant it is an excellent subject, being always neat and tidy and requiring no staking. In the matter of soil it is not at all particular, although it readily responds to good cultivation. During the last few years some improved forms of this plant have been sent out under the names of *S. g. var. superba* and *S. g. robusta*. Both have larger flowers than the type, somewhat richer in colour. This plant is an easy one to propagate, either by seeds, which are produced freely, or by means of division, either in the autumn or early spring.

Another member of this family worth growing is *S. discolor*, also known as *S. nivea*, from the Caucasus, with creamy white flowers; while our native Wood Betony (*S. Betonica*), with flowers varying in colour from rich rose to white, is a very attractive plant. The Mexican *S. coccinea*, with its bright red flowers, is also a useful subject for later summer effects, flowering into the late autumn. It is best treated as an annual, sowing seeds outside in April where the plants are to flower; or better plants may be obtained earlier by sowing the seeds in heat, growing them on in pots and planting out in May.

W. I.



STACHYS GRANDIFLORA, AN EASILY GROWN BORDER PLANT, RICH PURPLE FLOWERS.

using a potting mixture of medium loam, leaf-soil and sand. When established, they ought to be removed to a cool greenhouse, and there given a position near the roof glass. As they require it they should be potted on into 5-inch or 6-inch pots, in which sizes they may be flowered. During the growing season they are best stopped at every joint until about the middle of August, when the flowering shoots should be allowed to develop. At this time they may be exposed to all the sun and air possible to ripen the wood; in fact, they may be stood out-doors for a week or two at this time, but in such small pots they require careful attention as regards watering.

This plant is a native of Brazil, and has been called at different times *Pleroma* and *Lasiandra*. There is a dwarf and more floriferous form of the above, which is better suited for pot culture; but, unfortunately, at the present time it seems lost to cultivation.

J. C.

different purposes, and those who may not be acquainted with the best will do well to pay a visit to a good fruit nursery and investigate.

We find, for keeping up a somewhat long supply of Apples, the following very useful, both grown in bush form and as orchard trees: Grenadier, Cox's Pomona, Warner's King, Lord Grosvenor, Bismarck, Tower of Glamis, Bramley's Seedling, Lord Derby, Mère du Ménage, Old Winter Non-such, Byford Wonder, Chelmsford Wonder, Newton Wonder and Lane's Prince Albert, although there are numerous other excellent cooking varieties which for some particular purpose it would be well to include, seems to predominate. Dessert: Cox's Orange Pippin, Worcester Pearmain, King of the Pippins, Blenheim Pippin, Beauty of Bath, May Queen, Barnack Beauty, Adam's Pearmain and Ellison's Orange. This latter with me is very good, both in bush form and espalier trained; in fact, I consider this variety will, when better

NOTES ON VEGETABLES.

Cucumbers.—The plants are growing and fruiting freely, consequent upon the great amount of sun-heat experienced during November, which was unusual, constituting almost a record. The temperature should not drop below 65° by night, rising to 75° by day. Do not overcrop the plants, as this is fatal to a continuance of satisfactory results. Thin the fruits directly they are set, keep the shoots regularly stopped at the second leaf. Avoid syringing the plants; rather supply moisture by damping the walls and hot-water pipes. Top-dress the border lightly with decayed leaves, loam and partially decayed horse-manure directly roots show through the soil. Give liberal supplies of weak, tepid liquid manure. Where plants are required for putting out early this year, seed should be sown at once singly in light, sandy, moist soil in small pots, plunging them in a brisk, moist bottom-heat and withholding water until the plants show above the soil. Improved Telegraph and Every Day are good varieties to grow.

Tomatoes.—Young plants intended for fruiting early this year should have a position close to

the glass in a temperature of 60°, with a reasonable amount of air, so that the growth will be sturdy. Any tendency to weakly growth through overcrowding must be at once checked, or the plants will be of little use for the purpose named. Plants that are now swelling their fruits should have a liberal quantity of tepid water, and occasionally weak liquid manure, to help to increase the size of the fruits. As they approach the ripening stage, cut them and store in a warm room, where they will finish off and relieve the plants of an unnecessary strain.

Cauliflowers in frames for an early crop should be ventilated freely when the weather is suitable. By no means coddle them, or the result will be poor, the plants being unable to withstand the many cold winds they will experience in March and April. The plants partially headed when stored in pits or temporary frames will require constant attention to prevent them from damping by an excess of leaves about the flower. Damp, dull weather has a tendency to do this when air is not sufficiently admitted.

Winter Spinach sown the last week in July has already given heavy crops of succulent leaves. The plants, at the same time, are remarkably sturdy. There is no reason why all leaves that are matured should not be constantly used, as long as the plants are not defoliated too much. Keep the ground free from weeds, and after the last picking of leaves dust the plants and the ground with soot, and hoe over the surface, choosing a dry day. This will stimulate the plants for an early crop.

Broad Beans.—The Longpod type should now be sown, if not already done, as they grow more sturdily than plants from spring-sown seed, they fruit earlier, and are not so liable to attacks of black aphid, because they are in a more advanced state. Naturally, a south border is the best site, but the absence of that need not deter anyone from sowing in the open, provided they protect the plants from north and east winds by a board or evergreen boughs thrust in the soil.

Celery should have its final earthing completed without delay, as growth has almost ceased. Well protect the plants with straw or Bracken during frost, covering the soil ridges with long strawy manure in the event of very severe frost.

Parsnips and Artichokes should be lifted in advance for several days' supply, storing them in moist sand in a shed or cellar to avoid the inconvenience of lifting the roots when the ground is frozen hard.

Salsify, Scorzonera and Chicory should be lifted without delay and stored in sand or ashes at the foot of a north wall, covering sufficiently to ward off severe frost.

No opportunity should be lost for digging and trenching all spare plots, thoroughly breaking the soil below, but leaving the surface as rough as



A SPRAY OF THE MALE CATKIN OF
GARRYA ELLIPTICA.

possible to be disintegrated by the weather. Now is the best time to add manure for this year's crops, especially Potatoes. In trenching, long strawy manure at the bottom will be an advantage to soil of a heavy character, placing that which is partially decayed nearer the surface. I here emphasise what I have repeatedly said, that a compost of decayed vegetable refuse, old potting soil, wood-ashes and a handful of quicklime thrown in as turning proceeds is a most valuable addition to the soil for any vegetable crop.

Swanmore.

E. MOLYNEUX.

A HARDY SHRUB WITH BEAUTIFUL CATKINS.

In a few gardens just now the beautiful hardy shrub named *Garrya elliptica* is clothed with its long, pale green catkins, which contrast so well with the darker-hued, Oak-like leaves. It is difficult to understand why it is not more extensively grown, as it was introduced to this country from California as long ago as 1818. It is admirably adapted for growing against a north or west wall, or as an isolated bush on a lawn. Well drained but moderately rich soil seems necessary for its wellbeing, and when once established the roots should be disturbed as little as possible. The only pruning needed is the shortening back of shoots that are encroaching too far on space required for other plants, and this is best done immediately the flowers have faded. The shrub is dioecious, and

as the male plant is much the prettier of the twain, it should be stipulated when ordering. W.

ROSE GOLDEN EMBLEM.

THIS Rose is not yet in commerce, but those who were fortunate enough to be able to attend the last autumn show of the National Rose Society at Vincent Square, Westminster will remember that it was one of the trio of Roses raised by Messrs. S. McGredy and Son of Portadown, Ireland, that were deemed worthy of the society's premier award, the gold medal for new seedlings.

The general verdict, as far as one could ascertain it, both of the expert and the public, was that the award was fittingly bestowed. Golden Emblem is undoubtedly a seedling from

Rayon d'Or. It carries the signs of its parentage written large, and if the cross with the Hybrid Tea has been successful in retaining some of the best qualities of Rayon d'Or and, at the same time, has bred out some of those that are not desirable, we have in the product a very fine Rose. I have not flowered it, although my garden now possesses some recently planted bushes. Compared as it must be with Rayon d'Or, it has a much improved habit of growth, and, as staged, the flower is a better shape and with a slightly different shade of colour, containing rather more copper than is generally seen in its parent, the intense colouring of which, some of us are inclined to think, but it is treason to say so, is at times garish. The thorns, too, are less numerous and obtrusive.

Altogether the raiser is justified in claiming it as an improvement on its now well-known parent. A real good bedding variety, with few of the faults and all the good qualities of such a Rose as Rayon d'Or, is much to be desired. Golden Emblem, then, is assured of a welcome when it can be placed in commerce.

The name is typical of its raiser. Those who know best the genial countenance and giant frame that go to make up the outward appearance of Samuel McGredy have always recognised that there was hidden away under that exterior a strong element of the poet in his personality. Whether it is inherited or only more fully developed in him than in most Irishmen (all Irishmen, I believe, have some poetry in their composition) I do not know; but who can doubt it being there, and it breaks out now and then in the names he chooses for his seedlings.

Golden Emblem. An emblem is a picture representing to the mind something different to itself—a type. Rose Golden Emblem may very well represent to the mind of its raiser something different to itself. I do not mean what it will be worth or what it may have cost, but I venture to think it may well be that it represents the result of years of labour and thought, of that strenuous striving after the unattainable, by which alone progress may be reached, in Roses as in all things earthly. Or he might have remembered the old word "Emblements" that used to puzzle me when I came across it in old agricultural leases, until I turned it up one day in an etymological dictionary, to find out that it meant "A crop raised by the labour of the cultivator—but not fruit or grass." What name, therefore could be more fitting for a good seedling Rose?

So one feels one can in this case congratulate the raiser not only on the Rose, but also on the name he has given it, which, one is bound to admit, is not always the case in this connection. It is hoped that Golden Emblem may be distributed this year.

Southampton.

HERBERT E. MOLYNEUX.

SHOW OF HARDY BRITISH-GROWN FLOWER BULBS.

BY THE REV. JOSEPH JACOB.

NOW that the Royal Horticultural Society have taken the matter in hand and have fixed August 1 next for a show of the above, I would like to urge the importance of the event. I look upon it as a great object-lesson to show the uninitiated what our islands can produce in the way of bulbs. It is generally said that it is much easier to pull down

is of peculiar interest to us, each time it was at once translated into English. Tulips occupy a large space, and Hyacinths only a very small one. Sixty years afterwards, Nicholas van Kampen of Haarlem wrote "The Dutch Florist" (1760), and this, too, was at once translated into English. Here, however, the Tulip has given place to the Hyacinth as, in the author's words, meriting "the first place among all the ornaments of a flower-garden." Next in order after these two come Ranunculi and Anemones. This was the time when George Voorhelm—the Eckford of the Hyacinth—was at the height of his fame. He raised many seedlings and wrote an excellent little treatise on his favourite flower (1752, other editions 1762 and 1773). This was translated into English by one Rocque, a florist of Walham Green, in 1755. This latter English edition is very rare, but I have lately seen a copy in the Picton Library, Liverpool. Mention should also be made of the catalogues of van Kampen, of which English supplements appeared in 1769 and 1770; and a note says that the firm had "a mind to supply the work every two or three years."

The reverse side of the picture is the conduct of James Justice, one of the Principal Clerks of Session, Edinburgh, who in his "Scots Gardeners' Director" (which title he altered in the second edition of 1764 to the "British Gardeners' Director") dilates upon the possibility of raising Hyacinths from seed in Scotland, and shows on pages 245 to 256 of the latter how he successfully accomplished his self-set task. It is almost certain that the trouble and time involved prevented it from ever being a commercial proposition, for the author of the "Horticultural Tour of the Caledonian Society" in 1817 states that this art was then in a great measure lost in the country.

We never know what we can do until we try. One feels, therefore, that in the present movement for the encouragement of home industries, bulb-growers should have the chance of showing to as wide a public as possible what can be done. Already Justice's example has been copied, and bulb farms have been established north, south, east and west; but the buying public do not quite realise how

much has been accomplished. The show next August will, I trust, by the publicity it will give, furnish a wholesome stimulus to what is bound to be a great industry until the love of flowers dies away.

There are two classes in the schedule which are exclusively for amateurs. There is no reason whatever why there should not be much more saving of bulbs in private gardens than there is. Here, again, the result of the show will be an object-lesson as to what can be done. In this time of war and saving, the lesson should be doubly valuable and striking. Let us try what we can do. Perchance before long the word *British*, when applied to bulbs, will be something to conjure with.



THE NEW ROSE, GOLDEN EMBLEM, A SEEDLING FROM THE WELL-KNOWN RAYON D'OR.

than to build up. There are, however, exceptions to the rule, and one is "custom." Until the last quarter of a century or thereabouts we have underrated the capabilities of our soil and climate, and British-grown bulbs have not had the chance they might have had.

It is easy to see how the idea that foreign-grown bulbs must, *ipso facto*, be better than our own. Two hundred years back—that is, about 1700—the Dutch were, I imagine, the only purveyors of bulbs on a mercantile scale in Western Europe. Henry van Oosten of Leyden was a notable man in those days, and issued a little flower book called "The Dutch Gardener," which in a few years passed through several editions, and, what

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Plants Under Glass.

Hippeastrums.—For the past month or two these plants should have been resting in a cool house, and if flowers are desired during March and April, the present is a good time to place a few plants in a temperature of 55° Fahr. Select those that are well rooted, and give sufficient water to wet the whole of the compost. The surface soil should then be removed, taking care not to injure the roots, and replace it with a top-dressing of good fibrous loam and leaf-mould. Syringe the bulbs daily and sprinkle the floor and stages with water.

Chrysanthemums.—The main batch of these useful plants can now be inserted, and placed in a cool propagating-frame; but directly they are rooted, the pots must be placed on a shelf in the greenhouse to secure short-jointed, sturdy plants. Stock plants must be kept quite cool until the requisite number of cuttings is obtained.

Violets in Frames.—These should be examined occasionally and all dead leaves removed. The runners must also be pinched off. Stir the soil between the plants if it is at all sour, and admit air on all favourable occasions.

The Flower Garden.

Herbaceous Plants.—No time should be lost in making the borders tidy. If new borders are contemplated, the ground can be dug 2 feet deep, and if it is in a poor condition, some well-rotted manure should be applied. No hard and fast rule can be laid down in regard to arranging the plants, but straight lines and a general slope from the back of the border to the front must be avoided.

Roses.—These may be planted until March, whenever the soil is not too wet. If the bushes arrive after a lot of rain, it is much better to lay them in by the roots until a favourable period for planting arrives.

The Hardy Fruit Garden.

Replacing Old Trees.—Where it is intended to do this work or make additions to the collection, it must be completed without delay. Standard trees ought to be made quite secure to a stake, and, after planting, each tree should be examined occasionally to ascertain that it is quite firm in the soil.

Pruning.—This work must be finished at the first opportunity, excepting such as Red Currants, unless they are protected from birds with a wire-netting cage. When pruning, especially trees that have been neglected for a few years, we should try to remove some of the worn-out branches. These are of no use from the fruiting standpoint, and the increased light will be very beneficial to the branches that are left.

Manure for Fruit Trees.—Trees that are in a thriving condition do not require any manure at this season, but specimens that have been bearing heavy crops for many years cannot be expected to continue indefinitely. Such examples, also plantations of Gooseberries, Raspberries, Red, White and Black Currants, may receive a top-dressing of well-decayed manure.

Fruit Under Glass.

Strawberries in Pots.—A batch of the most forward plants should be placed in a cool house or frame, if not already done. Gentle forcing, especially in the early stages, must be practised, or the crowns will fail to produce good fruit. Careful watering with tepid water is essential. On bright days a fine spraying overhead will be beneficial until the flowers begin to open. A temperature of 50° should be maintained, and the house can be ventilated on all favourable occasions.

Melons and Cucumbers.—A sowing of these should be made and the pots placed on a hot-bed or in a propagating-case. When the seed has germinated, keep the young plants near the glass where the temperature is from 70° to 75°. Two useful Melons are Eminence and Triumph, while Cucumber Improved Telegraph is also recommended.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

General Work.—Manure should be wheeled on in frosty weather, in readiness for digging and trenching when the weather is suitable. If the manure has to lie long before being turned in, it is better to have it spread evenly over the surface as soon as the frost is gone, than to leave it in heaps for an indefinite period. Manure heavily where it is intended to grow such crops as Onions, Leeks, Peas, or the Brassicas. Potatoes do not require much fresh manure; indeed, if the ground has been well manured for the previous crop, a little artificial manure when planting is all they require.

Peas.—These should be sown on the first favourable opportunity this month for early supplies. The soil will usually be found in the best condition for sowing on the same day as the ground is dug, for, if left, snow or rain may intervene and render it difficult to get a good seed-bed for a considerable time. Choose a sheltered south border for early sowing.

Onions.—As soon as the seed has been delivered, it should be sown in boxes and placed in a gentle heat to germinate; a recently started

Peaches.—If not already done, the early house should be closed and the atmosphere kept slightly moist, with a night temperature of 45° to 50°, according to the state of the weather. Quiet forcing should, however, be observed for the next two months, as severe weather may set in and cause a lowering of the temperature. Peach Duchess of Cornwall or Nectarine Early Rivers can easily be had ripe by the middle of May without undue forcing if started now.

The Fruit Garden.

Planting.—As such a short time elapsed between the ripening of the wood and the setting in of severe frost last autumn, very little autumn planting took place; consequently a larger amount of it will have to be undertaken in the spring. Do not attempt to plant too early in the year, as the soil is seldom in good condition, and the trees will be better left till next month or even March than planting on sodden ground.

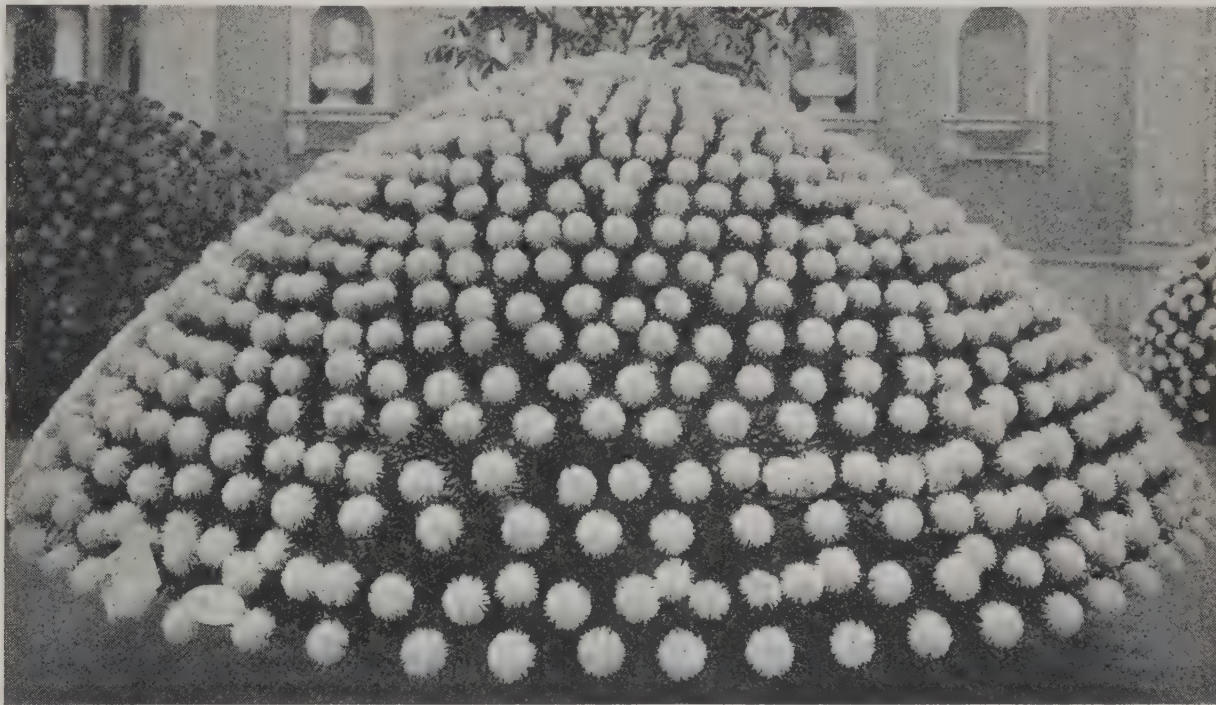
THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

MONSTER SPECIMEN CHRYSANTHEMUMS.

For several years past, at the autumn exhibitions of the Horticultural Society of New York,



A REMARKABLE CHRYSANTHEMUM LADY LYDIA.

vinery or Peach-house will suit admirably. Onions started in this way provide large specimens either for exhibition or for general use. In many places it is imperative to raise the whole crop in this manner, as outside sowings so often succumb to the maggot. Soil insecticides are, however, likely to prove an excellent antidote when their use becomes more general. I have had very good results from their use during the past two seasons.

Forcing Vegetables.—Continue to sow weekly a few pots of Kidney Beans, early dishes of which are always appreciated. Rhubarb and Seakale roots may also be placed at regular intervals in the forcing-house to keep up a succession. Seakale especially must be kept entirely dark in order to have it tender and well blanched.

Fruit Under Glass.

Vines.—The pruning and cleaning of these will now be well in hand. A mixture for painting the rods should consist largely of sulphur, as it remains on the rods all the season and greatly assists in keeping down red spider. If badly infested with mealy bug, winter dressings are not much good for exterminating this pest. It is better to tackle it in the growing season, and no better aid to its complete extermination can be had than the nicotine fumigants, which, however, must be cautiously used.

held in New York City, very large specimen Chrysanthemum plants have been a prominent feature. The largest of all was shown in 1915, and measured 16 feet 10 inches in diameter. This is believed to have been most probably the biggest Chrysanthemum plant ever grown or exhibited, not excepting the finest of those grown in China. The number of blooms is reputed to have been 1,800. The variety was R. F. Felton. When it is considered that the huge specimen was from a single cutting, grown in eleven months (according to the printed information displayed with the exhibit), the cultural feat will be better understood. Think of the watering, the feeding, the training, the absolute exactness in every detail; or try to grow one like this! Mr. John Canning and his foreman, John Campbell, did not carry through to a successful issue all the plants they attempted to grow, as at least one collapsed on their hands. Mr. Canning receives the fullest encouragement from his employer, Mr. Adolph Lewisohn, Ardslev, New York, who takes much pride in his plants and to whom THE GARDEN

is indebted for the photograph of the variety Lady Lydia (white), reproduced on page 11. Special arrangements have to be made to get these huge plants to the exhibition hall, but the greatest task of all was when a monster specimen of Wells' Late Pink was taken to the great show at Cleveland in November, which all America has been talking about, the distance being as far as from Exeter to Inverness. The plant had a special greenhouse built over it, and the traffic superintendent of the railway made all arrangements for its safe through transit, going himself on the train that had been chartered for the occasion. I believe that the largest specimens ever shown at Olympia and the old Royal Aquarium in London were not much, if anything, over 9 feet, so that the one now depicted is a giant in comparison. Of course, many people will scoff at such plants, pointing to their lack of true beauty and the impracticability of them; but others will be interested in knowing that such plants have been, and are being, grown.

New York.

J. HARRISON DICK.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

ANNUALS FOR BEDS (C. W. T.).—In asking for annuals with grey, green and gold colours, among others, you have set us a rather difficult task. Blue and orange colours could be much more easily given; but, even so, you say nothing about the size of the beds, which is important. Lobelia, Nigella, Phacelia and Nemophila are among the best blue annuals, while the China Aster provides a wealth of this colour and shades akin. Marigolds, Tagetes (both in variety) and Dimorphotheca aurantiaca provide some of the finer shades of orange. These latter are also profuse flowering. If you send us the size of the beds, we might assist you more definitely.

PÆONIES (Hilda).—The best period for planting these is early autumn—September and October—though they are planted over a much more extended time with comparative safety. In any case it should be done while the crowns are still dormant. Plants having two to four good crown-buds are the best; big clumps should not be planted intact. Carnea elegans, c. triumphans and Philomele are beautiful pink sorts; and festiva maxima, Marie Lemoine, candidissima plena and grandiflora alba plena some of the best whites. There are numbers of other varieties, however, of both shades of colour. The only safe test for a Lily of the Valley bed is its own behaviour, and if it continues to give good results

at flowering-time, it may remain for years undisturbed. Should it show signs of deteriorating, a mulching of manure may assist, pending replanting. Leaf-mould alone would in such a case avail but little.

DEFINITION OF A SINGLE-FLOWERED CHRYSANTHEMUM (W. F. M. C.).—For very many years, and until about two or three years since, the National Chrysanthemum Society used to define the characteristics of a single in this way: "The blooms of the single varieties may be of any size and form; but they should not contain more than a double row of ray florets or disc florets of sufficient length to form a raised disc or cushion as in the case of the Anemone blooms. The florets should be arranged sufficiently close together to form a dense fringe. The single varieties differ so much in the form of the blooms that they could be readily divided into several sections, but for the present it has been thought desirable to include them in one group." The suggestion contained in the last-mentioned paragraph has since borne fruit, for in 1910 a sub-committee was appointed by the National Chrysanthemum Society to alter, amend or delete the definitions of the various types of the Chrysanthemum, which all authorities then considered should be taken in hand and dealt with on very practical lines. Early in 1912 the sub-committee brought up their report, and ultimately the single Chrysanthemums (among other types) were divided up into sub-sections as follows: Sub-section I.—Varieties with one or two rows of ray florets. (a) Large-flowered, i.e., with a diameter of 3 inches and upwards. Examples: Mrs. John Peed and Edith Pagram. (b) Medium and small-flowered, i.e., with a diameter of less than 3 inches. Examples: Miss Mary Anderson and Nellie Riding. Sub-section II.—Varieties with three to five rows of ray florets. (a) Large-flowered, i.e., with a diameter of 3 inches and upwards. Examples: Mensa and Merstham Jewel. (b) Medium and small-flowered, i.e., with a diameter of less than 3 inches. Examples: Mary Richardson and F. W. Smith. Sub-section III.—Anemone-centred varieties. Example: Kathleen May. The secretary of the National Chrysanthemum Society is Mr. R. A. Witty, 72, Savernake Road, Gospel Oak, London, N.W.

TREES AND SHRUBS.

PRIVET FOR PROFIT (Perplexed).—We are afraid that you will not find the cultivation of Privet a profitable undertaking. Privet is grown by almost every nurseryman in the kingdom, and can be procured by the thousand at a very cheap rate. Moreover, you would have to keep the plants two or three years between rooting the cuttings and producing specimens suitable for sale. You would probably obtain the most satisfactory results by cropping your spare ground with vegetables, for, providing good vegetables are produced, they can always be sold. It would, however, be advisable to make enquiries in your own neighbourhood with a view to finding out which kinds of vegetable are in request. It is unlikely that you would find either Auricula or Carnation growing profitable with the convenience you have or propose acquiring, but you may be able to cultivate certain kinds of outdoor flowering plants, such as Narcissi, Roses, Gypsophila, early flowering Chrysanthemums, &c., with a view to selling the flowers.

PROPAGATING DWARF TREES (J. F. A.).—The dwarf forms of Abies, Picea, Taxus Cupressus, Thuja, Retinospora, Juniperus and Cotoneaster can be propagated by means of cuttings inserted in beds of sandy soil under a hand-light or in a cold but close frame. Pines can only be increased by seeds or by grafting varieties upon stocks of their respective types. It is advisable to insert the cuttings between the middle of July and the middle of August. They should be watered well when first put in, and sprayed over occasionally, shading them from bright sun. As a rule, they are best left undisturbed for at least eight or nine months. Some people increase conifers by grafting, but it is not a method to be recommended when any other means can be found. Propagation by means of seeds is the most satisfactory method whenever it can be adopted.

ROSE GARDEN.

SEEDLING BRIARS (Barfield).—Plant the Briars in February, if the weather is suitable, in well-prepared soil. Allow 8 inches apart in the rows, and the latter 2 feet to 3 feet apart. Bud in August on the stem just beneath the base of the branches, really the root-stem.

ROSES DOING BADLY (Hilda).—It was not a wise thing to prune the Roses after planting, if you mean immediately after; but newly planted Roses should be pruned hard the first year, in March or April, following the planting. We should be inclined to think that the fault lay in the plants. Perhaps they had suffered by lying about unprotected before they were planted, or they may have been budded on the wrong stock, or may have been foreign plants. Good, well-rooted English-grown plants on the seedling Briar rarely fail to grow if they are obtained from a reliable source, and their roots well protected from the time they leave the nursery until they are planted. We have planted such plants, and some have been cut very hard back before planting, even to 4 inches or 5 inches, and they have grown splendidly. There is such a thing as preparing Rose-beds too richly; that is to say, the beds are given too much manure and it often comes too near the roots, an almost certain cause of failure. Roses succeed best when the manure is placed well beneath their roots, so that the latter are encouraged to run after the fertilisers when new roots are forming; but at the time of planting they should be given a shovelful of nice fine

compost quite free from manure. If this be done and the roots made very firm, failures should not occur, providing, as we said before, good, healthy, well-ripened plants are secured.

FRUIT GARDEN.

APPLE BRAMLEY'S SEEDLING DISEASED (E. C. C. D.).—The disease described by our correspondent as affecting this Apple has been noted by others, but, as far as we know, its presence is not widespread. In order to draw attention to a matter of so serious an import in relation to an Apple so widely and generally grown as this is, we print our correspondent's letter in the hope it may elicit information from fruit-growing correspondents as to the nature of the disease, its cause, and the best means to take to prevent an attack: "Much has been written the last week or two in THE GARDEN in praise of the above-mentioned Apple, all of which I should have heartily endorsed until the last three or four years, when I have found it infected with some disease. When peeled, a number of small spots appear under the skin and go right through the fruit, and if kept a few weeks the Apples go completely rotten. When living in the country, I looked upon this variety as one of if not the best and most reliable of keeping cooking Apples; but I have had to leave off buying it for keeping, as both those bought locally and those obtained from one of our best-known fruit-growers were infected; and on writing about it to the latter, I was informed that the disease had been very prevalent with them, and that no cause or remedy was known. It would be interesting to know if other growers have been troubled in like manner; if so, it means the loss of a very valuable variety."

MISCELLANEOUS.

BRUSSELS SPROUTS FOR EXAMINATION (R. F. C.).—The Cabbage leaves are attacked by the fungus *Mycosphaerella brassicicola*, a fungus which is common on Cabbages and allied plants in some seasons. No remedy can be applied which would be likely to be reasonable enough in cost to warrant its use, but diseased leaves should be burned. The Chrysanthemum is attacked by *Puccinia chrysanthemi*, the rust fungus. See reply to another correspondent below upon this subject.

LEAVES OF PRIMULA OBCONICA (J. W. D.).—The Primula leaves are damaged to some extent by red spider, but also by the plant having been allowed to become too dry either at the root or in the air. The conditions which have brought about the spotting of the foliage have also encouraged red spider, and the treatment which will prevent the foliage from becoming spotted, viz., the maintenance of a moist atmosphere, will also keep the red spider in check.

RUST ON CHRYSANTHEMUM (J. C. W.).—The Chrysanthemum is attacked by the Chrysanthemum rust (*Puccinia chrysanthemi*). It would be unwise to propagate from diseased plants, for there is great danger of carrying the disease over to the next year if this is done. The house also in which they are being grown should be thoroughly cleansed, and pots and everything used well scrubbed with water and carbolic soft soap. If the cuttings are used, it should be only after the old tops have been removed some time, and the cuttings should be dipped in either a solution of 1oz. of potassium sulphide in 3 gallons or 4 gallons of water, or in a rose red solution of potassium permanganate. The same solutions should be sprayed on the plants as they grow, in order to protect them from the attack of the fungus in future.

SOCIETIES.

WARGRAVE AND DISTRICT GARDENERS' ASSOCIATION.

THE last meeting of 1915 took place on December 15, when Mr. E. Feltham, Landscape Gardener, Twyford, gave a most interesting paper on "The Outlook for Gardeners." He referred to what he called the haphazard method of training young gardeners in the past, and then spoke of the great changes coming over the profession at the present time and what would in all probability be the outcome of these changes. A very animated discussion followed, in which a number of members took part, and a unanimous vote of thanks was accorded Mr. Feltham and carried with acclamation.

HIGHCLIFFE GARDENERS' ASSOCIATION. THE ANNUAL MEETING.

THIS was held recently when there was a good attendance of members. The audited accounts for the past year were presented and passed. They showed a substantial balance after handing a good sum to the Red Cross Fund. The members raised the latter sum through holding an autumn exhibition of fruit, flowers and vegetables. Last autumn they raised about the same amount for the benefit of the Prince of Wales' Fund. The president, E. Huntly Hooper, Esq., J.P., the vice-presidents and all the officers were re-elected, and received the warm thanks of the members for their past services. The business part of the meeting being disposed of, there was a keen discussion on "Questions" put by several members. The lectures in the programme for the first half of the year 1916 promise to be very interesting and instructive. Cordial thanks were passed to Mr. Cuell, the chairman.

THE GARDEN.

No. 2303.—Vol. LXXX.

JANUARY 8, 1916.

NOTES OF THE WEEK.

The National Chrysanthemum Society: Change of Secretary's Address.—All communications for the National Chrysanthemum Society should be addressed to Mr. Richard A. Witty, Secretary, 6, Dowgate Hill, Cannon Street, London, E.C. (Telephone Central 1745.)

Suspension of the "Journal of Horticulture." With the last issue of the old year, the *Journal of Horticulture* ceased publication for the duration of the war. The journal has been published regularly since its establishment in 1848, but with the outbreak of war its fortunes commenced to wane.

The Sweet Pea Annual, 1916.—The twelfth Annual of this society, just issued, loses none of the interest that characterised the previous numbers. It contains a glowing description of the outing to the trials and other events of the past year. Mr. Thomas Stevenson gives his impressions of new varieties, Mr. J. Harrison Dick deals with summer Sweet Peas in America, Mr. W. Cuthbertson dwells upon failures and disappointments, and Mr. C. Blair writes on Sweet Peas in Scotland, where, luckily, they do not suffer much from disease. Altogether it is quite an interesting publication.

Preserving Poinsettia Blooms in a Cut State.—The blooms of these valuable decorative plants may be preserved for some time in a cut state if, immediately after they are cut, about an inch of the stem is immersed in boiling water for about two minutes. This does not prevent absorption of the water to the stems, and the leaves as well as the bracts remain fresh. Burning the ends with a hot iron is sometimes adopted but while this prevents the bleeding it also checks absorption of water; consequently, while the bracts remain fresh, the leaves droop quickly.

A Useful Greenhouse Plant.—During the dull days of winter, when half light often prevails, the orange-tinted flowers of *Reinwardtia trigyna* seem to stand out most conspicuously. It has long been known in gardens under the name of *Linum trigynum*. Another species, *R. tetragyna*, has primrose yellow flowers with a yellow centre, and four styles instead of three as in *R. trigyna*. Which is the more beautiful is a matter of opinion, but as they require little space and their cultural requirements are not at all exacting, a place should be found for both. Cuttings should be struck early in the year.

Pruning Trees.—As the sap of a number of our trees, particularly those with large leaves, commences to flow early, any pruning or cutting that may be required should be taken in hand now without delay. If this work is left until the spring, excessive bleeding takes place, which is detrimental to the tree. This

is especially noticeable with the Walnut, which bleeds very freely when cut late.

The Common Dragon (*Arum Dracuncul*). What a contrast is seen in the dull chocolate brown spathe of *Arum Dracuncul* to the pure white spotless form of its close relative the *Arum Lily*! The common Dragon is doubtless more curious than beautiful, but its spotted stems and remarkable flowers never fail to attract attention. It is quite hardy and very suitable



ARUM DRACUNCULUS, A HARDY AROID RELATED TO THE LORDS AND LADIES OF OUR HEDGEROWS.

for naturalising in leafy soil in shady places, where it may be planted now.

An Attractive Barberry.—Among the newer Barberries of comparatively recent introduction from China, *Berberis stapfiana* is one of the most distinct and useful. It is allied to *B. Wilsonæ*, but as a garden plant is larger and more vigorous in growth. During the recent mild winters the bushes have remained semi-evergreen, but a severe winter may change this character. At present 4 feet to 5 feet high, the bushes will

probably grow taller. They are elegant in habit, with graceful arching stems at present freely clothed with carmine red fruits.

Desirable Melons.—Mr. Colin Ruse, page 623, issue December 25, 1915, recommends the variety *Triumph* as a most reliable sort, finding this variety gives more satisfaction than *Hero of Lockinge*. The culture of Melons may differ so much that a variety succeeding with one person may be useless with another. The soil and general conditions of growth, and especially those relating to the ripening of the fruit, vary to such an extent that a variety may easily receive a bad reputation. It is, perhaps, fair to assume that where one plant of any other variety has been grown in the past, twenty of *Hero of Lockinge* have been, so popular is the variety.

Chicory and Coffee.—Readers may lately have read various notes in the daily papers about the importation of Coffee into Germany during the war. In one it was pointed out that, could it be prevented or even very considerably lessened, its curtailment would have much the same disturbing influence there that the stoppage of Tea would have in England. This would not be the first time that the want of Coffee in war-time has been found inconvenient. The same thing happened in what is now Belgium "during Buonaparte's sway, when Colonial produce was either scarce and dear or entirely interdicted"; and to combat the shortage, Chicory (*Cichorium Intybus*) was largely grown, as it was found that the dried roots, ground to a powder, made a good substitute, either alone or else mixed with the true bean. This seems to have been the beginning of the custom of mixing Chicory with Coffee.

An Extra Late Aster.—Mr. Charles Comfort, Broomfield Gardens, Davidson's Mains, Midlothian, writes: "While paying a brief visit to the establishment of Mr. Alexander Porter, florist, Davidson's Mains, Midlothian, on December 14, I came across an exceptionally late Aster named *A. Datschii*, a small-flowered white variety (or species) of the *ericoides* type. A plant which had been grown in a pot alongside the Chrysanthemums was well furnished with dainty little flowers of purest white. The plants of this Aster, which had been planted out and were potted up at housing-time, were only beginning to open their flower-buds, but looked as if they, too, would yield a full crop of bloom. Mr. Porter purchased the plants from a French firm a year ago, and, as already indicated, he has no information as to whether it is a distinct species or only a variety. In any case, this Aster must be looked upon as a valuable asset for Christmas and New Year decorations."

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The Fruiting of *Xanthoceras sorbifolia*.—

In "Notes of the Week" of December 18, 1915, the fruiting of *Xanthoceras sorbifolia* is brought to notice. It may interest you to know that the specimen in the Botanic Garden, Cambridge, produces fruit almost every year. The tree here is recognised as the largest in this country, being over 22 feet high, the stem of which is over 17 inches in circumference 1 foot from the ground.—F. G. P., Cambridge.

Arbutus Unedo.—Referring to your recent paragraphs in THE GARDEN as to *Arbutus Unedo*, I may say that even in our rather rigorous climate here we have it growing freely up to 6 feet or 8 feet and flowering and fruiting freely.

It is surprising what a quantity of flowers can be had from plants covered with an ordinary two-light frame placed on an eastern border, where the wall affords much protection and the autumn sun is available for the benefit of the roots. After the crop is gathered in February, completely top-dress the surface with half-decayed horse-manure, and draw off the lights in summer.—S. H.

Climbing Shrubs in Winter.—I have been greatly interested in the recent notes on climbing shrubs and the references to *Solanum jasminoides* and *Passiflora carulea* flowering after the hard autumn frosts. I thought it might interest you, therefore, to see a photograph of the former, which was planted only a year and a half ago and has had no protection except that afforded by an *Azara microphylla* (which is about 5 feet high) planted practically in the same hole. The aspect is south-west, but it is a very windy corner, and I am sorry the photograph is too

and anything really useful (unhappy phrase!) at that date is worth growing. *Earlswood Beauty* is, as its name indicates, a very old white single variety; in fact, Mr. Wells no longer includes it in his list. I still grow it, however, and can heartily recommend it as a free-flowering white spray variety coming in at the very end of December. *Merstham Jewel* is a large-flowered, stiff-stemmed variety which can also be depended upon—in Scotland, at any rate—to keep over the New Year. This latter variety has reddish terra-cotta petals, tipped with yellow. For the full development of the flowers it should be disbudded.—CHARLES COMFORT.

Lowther Castle Gardens.—The Earl of Lonsdale has written me to say that much of the present beauty of the gardens at Lowther Castle (see issue December 25, 1915) is attributable to the splendid work effected there by the late head-gardener, Mr. F. Clarke, who now resides at Barley Thorpe, Oakham, but who superintended the Lowther Castle Gardens for many years. At the same time the Earl testifies that the present head-gardener, Mr. James Jeffrey, has in a very short period achieved a great deal for the artistic development of the gardens, which, as I know from personal observation, are well worth going a very long distance to see.—DAVID R. WILLIAMSON.

Mutisia decurrens.—In many districts this beautiful South American climbing plant, alluded to by your correspondent Wyndham Fitzherbert, fails to give satisfaction. It may, however, be of interest to readers to know that fifty years ago there was a thriving specimen in Glendenning's nursery at Turnham Green, a spot long since covered with houses. Despite its proximity to London, it did remarkably well. It was planted close to some loose-growing Privets used as a screen, and the climbing shoots of the *Mutisia* scrambled in and out among the Privets. There it seemed quite at home, and the showy Gazania-like flowers were very freely borne. The roots were, on the shady side of the screen.—H. P.

Silene Asterias grandiflora.—In reply to the enquiry in the issue of January 1, page 2, this plant is well worth growing. I have had it here in the rock garden for a dozen years or more. It forms rosettes of handsome, deep green leaves, and throws up numerous stems of about a foot high, surmounted by rather compact heads of small flowers of a good shade of crimson. These last in beauty for a week or two, and then produce abundance of seeds, which, if left to sow themselves, produce more young plants than I need. As the life of a plant does not exceed three seasons here, some of these youngsters are required to keep the race going, and the others are easily pulled up to give away. I do not know of any figure of this plant, but see that it was described (at least the wild form of it, without the varietal title of *grandiflora*), by Grisebach in his "*Spicilegium Floræ Rumelicæ and Bithynicæ*," published in 1843, and it comes from the Banat. I believe I got the seed from Messrs. Thompson and Morgan of Ipswich. Here it seems to do best in half shade, and the strongest plants result from those that spring up on a rather moist bank in the lower portion of my rock garden; but most probably any deep, rich soil would suit it well enough.—E. A. BOWLES, *Waltham Cross*.

Salvia leucantha.—There is, I think, a mistake in the description of this very desirable winter-blooming Sage where it is described as having violet flowers and white woolly down calyx. The very opposite must have



A READER'S HOUSE IN OXFORDSHIRE CLOTHED WITH CLIMBING SHRUBS IN LESS THAN TWO YEARS.

For weeks the branches, covered with flower and berry, have been used in the house as decoration.—M. C., *Butts Close, York*.

Christmas Roses (*Hellebores*).—Reference is made on page 623, December 25, 1915, to the charming blossoms obtainable by gentle greenhouse forcing. I know how easy it is to have quantities of bloom by that method, and, as is rightly said, *altifolius* is the best variety. Now comes another detail in the matter—the future stock of plants. When once a clump is lifted and forced, it is then useless for several years; the constitution is so weakened by interference with its roots as to be almost useless afterwards. My plan to provide a supply of these delightful flowers is to either grow the plants in a cold frame entirely or place them at the foot of a south wall and there cover the plants with lights in November, when the clumps yield to this treatment year after year and where they get stronger and larger each year. I find the least interference with their roots, the better for their future welfare.

small to show the tangle of shoots, which bid fair to cover the roof if not killed this winter. *Vitis Coignetiae* in the corner is the same age, and between the windows is a blue *Solanum*, not a year old, which has grown very much since the photograph was taken. Further on, facing the white *Solanum*, is the blue Passion Flower, facing east, and which is still to-day (December 27) covered with buds trying to open. I may mention that the house and creepers will not be two years old till the spring, except an old *Wistaria* on the bay, which laid on the ground for thirty years after the original house was burnt down. It is marvellous what can be done with creepers and wall shrubs in good soil. A small slip of Scented Verbena in the courtyard, planted last May, is now a large bush.—A. LA T., *The Old Hall, Oxon*.

Two Good Late Single Chrysanthemums.

Up till the middle of December the Autumn Queen is lavish with her offerings, but by New Year's Day she becomes more sparing with her gifts,

been intended, as in *Salvia leucantha* the flowers are white, and it is the woolly down round the calyx that is violet—not the flower. If there is a form with violet flowers and white calyx, I shall hope some day to possess it.—E. H. W.

The Flowering of the Blue Gum Tree.—

The accompanying illustration depicts a flowering shoot of *Eucalyptus globulus* recently sent to this country from Italy. Such flowering sprays have lately been imported in quantity, and their appearance in Covent Garden Market has aroused a good deal of interest. However, it occasionally happens that *Eucalyptus globulus* produces flowers in the open in this country. The flowers are very curious, and quite unlike those of any other plant. The calyx takes the form of a perfectly tight-fitting cap situated on the top of the flower-bud. As the flower develops, the cap is pushed off in one piece, and the yellow anthers previously closely packed within the cap are left exposed to the wind and to the visitations of insects. In the midst of countless anthers is a bright green stigma and the ovary at its base. The flowering is accompanied by a change in the form of the leaves. The mature branches carry sickle-shaped and alternate leaves, while in the juvenile form the leaves are round, opposite and glaucous. *E. globulus* is one of the most characteristic trees of Australia, where it makes rapid growth and sometimes exceeds 300 feet in height. It yields the valuable oil of eucalyptus, and its leaves, smoked in the form of cigars, are recommended for asthma. It is remarkable that this tree of gigantic proportions should have very small, almost minute seeds.—C. Q.

Anemone (*Hepatica*) Barlowii.—After having lost it for some years, *Hepatica Barlowii* has once more come into my garden through the kindness of an esteemed trade correspondent, who has many good plants. Its origin is ascribed to that famous florist, Mr. Sam Barlow; but where he obtained it seems lost in the mists of time. I should be glad to have some information on this point. Was it a selection, a cross, or a hybrid? One would almost imagine the last, on account of the habit being different from the ordinary *Anemone Hepatica*. However this may be, it is a handsome *Hepatica*, which I am delighted to have once more. Its colour is a fine blue-purple, and it ranks high in beauty and is ordinarily easy to grow.—S. ARNOTT, *Dumfries*.

The Hardiness of Arum Lilies.—The note by "E. B." in *THE GARDEN* for December 18, 1915, recalls pleasant memories of my first visit to Penzance many years ago. There I was particularly interested to see how well *Richardia africana* flourished in the dry soil of the front gardens along the side streets. Although a moisture-loving plant, the only effect of a dry soil and, what is perhaps more important, dry air of the streets on the many plants was a dusty greyness of the foliage. Flowers were borne in abundance. Nearly every piece of ornamental water in Cornish gardens contains most luxuriant masses of Arum Lilies, but none are so fine as at Trelissick, where the late Mr. Sangwin, who managed the beautiful gardens for nearly half a century, once told me that they could cut 2,000 flowers a day in the season and not miss them; and this was indisputable, for the flowers around the lake were literally in countless numbers. I planted roots of Arum Lily in a pond in a much colder district than West Cornwall, and, although the minimum winter temperature is always below 16° Fahr., the Arums flowered admirably; but,

as may be expected, fully a month later than in West Cornwall. Although gardeners in the Home Counties cannot hope to grow Arums as border plants, like their more favoured Western *confrères*, yet I am convinced that these chaste and beautiful Arum Lilies would flourish in many a sunny pond if placed in shallow water, though sufficiently deep to be safe from frost.—CECIL BARTLETT.

Carnations as Wall Plants.—The list of plants suitable for wall gardens, recently published, reminds me that at the recent show of the Perpetual-Flowering Carnation Society a gentleman visitor informed one of the trade exhibitors that he grew a large number of Carnations on the top of an old wall. Seed gathered from sundry plants was scattered abroad, with the result that excellent plants have established themselves, and in their season give a splendid display. In this connection it may be mentioned that Carnations will frequently flourish in soil that the commonest weed would scorn. Some years ago Mr. W. H. Page of Hampton made a series of tests with Perpetual-flowering Carnations in rooting mediums ranging from the finest loam to plain furnace ashes. Strange to relate, the ashes produced the finest plants. Some two seasons back Mr. Laurence J. Cook, of Messrs. Stuart Low and Co., also grew a number of Carnations in a box containing nothing but pure silver sand. A little feeding with special Carnation manure resulted in plants equally as vigorous as those grown in pots in the ordinary way. Incidentally, I may mention that the commercial system of growing Carnations on benches gives very little rooting area. The average depth of soil is less than 4 inches, and as the plants are planted about 10 inches apart all ways, it follows that they have to forage for a living, especially when, as is often the case, the plants remain on the benches for two years.—T. A. W.

Banksias.—The illustrations of Banksias in *THE GARDEN* for December 18 carry my memory back to nearly fifty years, or, to be exact, to the summer of 1866. At that time I, as a boy, entered the Royal Botanic Gardens, Kew, and was sent to the Temperate House. There was then in that structure an extensive collection of Banksias, many of the plants being of considerable age, no doubt the product of seeds sent home from Australia by the earlier Kew collectors. The then foreman of the Temperate House was a gardener of the old school, whose idea of a per-

fectly-shaped plant was founded on the strictly trained pyramidal-shaped Azaleas, at that time so much in vogue. It therefore occurred to him that it would be a great advantage if all the Banksias, as far as possible, were trained as pyramids, and with the consent of the Curator he then set to work. With the assistance of a tall, powerful Irish labourer, stout stakes were driven into the pots, to the great injury of many roots. The soil was so firm that a heavy mallet was necessary to drive the stakes home. This done, the training of them into a somewhat pyramidal shape, when possible, was taken in



THE FLOWERING OF EUCALYPTUS.

 The photograph was taken as one flower-cap was being shed.

hand. As might be expected, many branches were snapped off during the process, and the collection of Banksias rapidly dwindled away.—H. P.

FORTHCOMING EVENT.

January 11.—Royal Horticultural Society's Exhibition of Flowers and Fruit. 1 p.m. to 5 p.m. Royal Horticultural Hall, Vincent Square, Westminster.

NOTES FROM THE RIVIERA.

BY EDWARD H. WOODALL.

Cupressus arizonica glauca was only a name to me till the other day, when I was taken to see it planted on a dry hillside. I wonder if it is as unknown to most folk as it was to me. Certainly it is a striking subject, and very beautiful when in its proper place. I should like to be the man who had planted it some years ago, or had the opportunity of making a new garden, where it should be the distinctive mark instead of the two ubiquitous Palms. It is not a blue grey like a *Cedrus atlantica glauca*, but a silvery grey like an Olive in the wind, and contrasts so strikingly with such subjects as *Cryptomeria japonica* in

and the amount of growth and foliage in proportion to the flower is enormous. Why is not the very fragrant *B. auriculata* planted in its place? It at least can be kept within bounds when pruned hard after it has flowered in winter, and its fragrance is most delicious. Is it grown in too warm a house, I wonder? It needs no more warmth than *Jasminum primulinum*, and can stand 10° of frost on occasion, so an unheated house would be the place for it. *B. madagascariensis* is much less hardy, and succumbs easily to a cold night's frost. How graceful are the tall sprays of *B. asiatica* white with flower in the month of March!

Their patience would require four years at least of waiting; but as its propagation is so difficult and slow in other ways, it is much to be recommended. The seedlings vary in sweetness as well as in colour and size, so there are worthless ones as well as those that are an advance on the type.

A Primula Garden.—It was pleasant to see in December how good an effect can be produced by a Primula garden. The modern varieties hold their blossom so much better than the older sorts, and the variety of colouring is now so great that with the aid of *Primula kewensis*, that needs the sun, and *P. malacoides*, that will bear any treatment in winter, a very charming effect can be produced which will last through the three winter months. *P. obconica* comes in later, and individually I do not much care for its range of colour, except the white, which is really beautiful. The white *malacoides* is, I think, disappointing when compared with the type. Bold groups of the useful *Linum trigynum* and bushes of the very bright and Heather-like plant *Lopezia miniata* make a charming background for the Primrose family, and give a note of distinction to the winter garden of Eastern Primroses.

Browallia viscosa has been quite effective as a blue bedder. Though smaller in flower, it is so much hardier than the handsome *B. speciosa*, and is worth planting now and again. It lasts as long as the brilliant *Salvia splendens*, which is still so gaudy in places. As for the glory of *Acacia podalyriæfolia* at this season, I may say it surpasses all others when at its best, and lasts longer on the tree (not cut) than any other, beating even our old friend *Acacia dealbata*.

ROSE QUEEN OF FRAGRANCE.

WHEN the Clay Cup was awarded to this Rose at the Holland House Show by the Royal Horticultural Society in 1914 for fragrance, many adverse comments were then passed on its merits for the object for which it was shown. At that time I had

ample opportunity to test the salient point in the flower, and was most emphatic in expressing an opinion that the judges were correct. Time has proved the wisdom of their award, and I have had ample opportunity of proving to my own satisfaction that the Rose is all that Messrs. William Paul and Son claimed for it when they staged it for so handsome a prize.

In the open it is a grand Rose in growth and flower. The bloom is globular in form and full in the centre, with closely overlapping petals of deep rose or shell pink, overlaid with silver; a fine full bloom, most delightful for cutting, as its fragrance has charms all its own. All who have not yet added this Rose to their collections should lose no further time in doing so.

Swanmore.

E. MOLYNEUX.



A FLOWERING SPRAY OF THE FRAGRANT BUDDLEIA ASIATICA.

its brown red winter colouring or the brilliant reds and browns of the Japanese *Diospyros Kaki* or Persimmon. It would not suit the greens of an English landscape, nor does it show to advantage near the familiar Cypress of this country, but its peculiarly elusive colouring of silvery mist is most attractive in this land of bright sunshine and marked shadows. I hope someone will tell me if it is grown in English gardens; but I fear it cannot give the surprise there it gave me in seeing it in this land of contrasts and strong sunlight. Arizona is a dry land, no doubt, and this tree would be out of place on moist and rich lowlands, even if it did succeed there.

Buddleias: Fragrant and Otherwise.—It seems surprising that anybody can recommend the rampant *Buddleia madagascariensis* as a fit plant for a conservatory. Its evil smell in the sunshine alone condemns it for such a place

That, too, is a very desirable strong-growing shrub, far preferable to *B. madagascariensis*, and, like it, does not show to advantage when cramped in a pot and deprived of sunshine. It lasts so well in water that its tall sprays of blossom are most useful and decorative when cut. An excellent effect has been made by grouping the cherry crimson or magenta shades of *Cyclamen* with the little *Viola cornuta* *Papilio*. One enhances the other and heightens the colouring most remarkably, so that an idea for future use can be taken from seeing these two flowers properly grouped together, and the man who first originated it has my warm thanks. I often see notices about *Chimonanthus fragrans* seeding in England. It seeds very freely here, and the variety in the size and the colour of the seedlings when they flower is much greater than I should have expected. I wonder if English gardeners have tried it.

THE CULTIVATION OF EDIBLE PEAS AND BROAD BEANS.

THE time is now at hand to make the first sowing of Peas. The Pea is perhaps the most popular of all vegetables, and with careful selection of suitable varieties there is little difficulty in keeping up a supply of green pods from May to November. There are many good varieties now on the market and, unfortunately, many inferior ones. There are also varieties which may be grown successfully in some districts and refuse to do well in others. Therefore it is wise to give new varieties a trial before planting them extensively. It must be very bewildering to the inexperienced to make a selection of varieties from the seedsman's catalogue, where he will find page after page of varieties with very flattering names. He would be well advised to consult a local grower of repute before making a final selection.

Preparation of the Ground.—

The ground should always be prepared some weeks before sowing the seed, and, where time and labour will allow, it should be trenched and well manured with decayed farmyard manure. For the earliest crop a warm, sheltered position should be selected. Here we gather our earliest pods from plants grown at the foot of a vinery wall. The main and late crops are best grown in the open. Many gardeners like to grow the main and late crops of Peas side by side, but I prefer to plant the late varieties in another part of the garden. It so often happens that, in a dry season, the main crops are attacked by mildew, which is bound to spread to the late plants if they are near.

Raising the Seedlings.—

If the ground is in suitable condition and there is no danger of it becoming waterlogged during very wet weather, part of the earliest sowing may be made outdoors, but having done this it is always wise to make another sowing in boxes under glass, planting out the seedlings when they are ready. It is a sound plan to grow Peas in shallow trenches, and for the early crops the soil should be placed on one side of the trench only, thus forming a protection from cold, cutting winds, which are so prevalent during the spring months. It is a good plan to use a little dry soil from the potting-shed when sowing Peas in the open early in the year. Sow the seed thinly, but not too thin. If the seedlings are too thick they can easily be thinned, which is better than having to sow again to fill up gaps. Traps must be laid along the rows as soon as the seeds are sown, as a precaution against mice.

Treatment after Sowing.—The plants must be supported with stakes as soon as there is danger of them being blown about by strong winds. There is nothing better than the brushy Hazel stakes for this purpose. The value of mulching cannot be too highly estimated, especially on light soils. For this purpose there is nothing more suitable than stable litter. Mulching should be done just when the plants commence to flower. In the event of a long spell of drought, the plants will need watering, more or less according to the nature of the soil. Diluted drainings from the farmyard will be of great benefit when the pods are filling. During stormy weather, well-seasoned

The latter variety was exceptionally fine in this district last year.

Broad Beans are said to be one of the most nutritious of our garden vegetables, and this fact should be borne in mind when arranging the crops for the coming season. In many gardens, especially those of the amateur, the Broad Bean is sadly neglected. Even where an attempt has been made to grow it, the same elaborate preparation which is usually made for the cultivation of the Pea is never in evidence, and in consequence the crop is invariably a miserable failure. In the matter of popularity it is nowhere with the Pea, but from the point

of view of vegetable food it is quite equal if not in advance, and this fact should be sufficient to bring it more into public favour in these days when the people's food supply is of such paramount importance. The Broad Bean is a deep-rooting plant, and, in order to grow it to perfection, the ground must be deeply dug and well manured early in the winter. There is no difficulty in keeping up a supply of pods during the whole season by successional plantings. One of its worst enemies is black fly, but by regular spraying with an insecticide this pest is easily eradicated. When the plants are well in bloom, the tops should be pinched out. A sowing may be made outdoors as soon as the ground is in suitable condition; but during the month of January it is rare that the ground is in suitable condition for seed sowing. Therefore, for the first crop the best method of raising the plants is by sowing in boxes under glass, planting out the seedlings when they are ready. There must, however, be no coddling, or the crop will be a failure. The plants should be put out in double rows, allowing about 9 inches between the two lines forming each row, and 3 feet between the double rows. Both Longpods and Windsors should be grown, but for the earliest crops Broad Windsor is hard to beat.

Lockinge.

E. HARRISS.



THE WINTER-BLOOMING PRIMULA MALACOIDES, WITH DAINTY PINK FLOWERS.

soot or some approved fertiliser dusted along the rows will also be beneficial.

Varieties.—As before mentioned, the greatest care must be taken in selecting suitable varieties to keep up an unbroken supply all through the season. For the earliest gatherings outdoors I have great faith in The Pilot. Although a round-seeded variety, it is a first-rate Pea, and though it reaches a height of 4 feet, it is the earliest Pea I know. For succession Defiance, Gradus, Duke of Albany and Discovery are all reliable. Autocrat and The Gladstone are hard to beat for late supplies.

the rock garden, though the variety to which I particularly refer here—*Santolina Chamæcyparissus*—is too big for the latter place, unless it be of the most roomy type. Grown in a large border, plants 2 feet high and as much through make imposing subjects, while they also make a capital background or "set off" for Rose beds. Of neater habit is *S. incana* for small gardens, while *S. alpina* is handier for the rock garden. A good permanent bed can be made by planting either of the first two varieties in conjunction with China Roses.

Highgate.

C. TURNER.

LAVENDER COTTON.

MORE, I think, should be made of this half-shrubby plant than would appear to be the case. Its silvery grey foliage is now very noticeable—indeed, it is always so. It will grow on the level, on banks or in

HARDY WINTER FLOWERS.

It is a common supposition that no flower contributes to the enjoyment of the garden in winter save the beautiful Christmas Rose. Several plants bloom, however, at this season, and with a freedom that would surprise those who have never seen them, their freshness, of course, depending upon the condition of the weather. When the winter is mild and snowless, or comparatively so, the Christmas Rose opens its pink-tinted buds in profusion, and soon to follow are the Lenten Hellebores, a group of exquisite shades of colour which seem appropriate to the soft light of the winter sun. Where there is shade, or the shelter of a copse or woodland, there would we plant the white Christmas Rose and the Lenten Hellebore, which the severest frost does not destroy. After a sharp night's frost the flower-stems sink, but lift themselves

or small tree—not more than 8 feet high in this country—is quite hardy, not fastidious as to soil, but delights in an open position. A few of the leafless flowering shoots brought into the house make quite a Japanese-like decoration, and we believe that in its native country of Japan it is much used in decorative work.

Almost as rare is the Winter Heath (*Erica carnea*). Why such an exquisite plant is not more seen in gardens is a mystery. Unfortunately, through improper attention, the group of this Heath in the garden of the writer was lost; but the plants the first year were a sea of crimson in January, and the carpet of warm colour lasted for several weeks. Visitors wondered what could produce this colour on a January day, and when told the Winter Heath was responsible for so much enjoyment, they remarked: "We have never heard of such a kind." The group consisted of about fifty strong tufts, and scarcely a leaf was visible under this mantle of crimson

tion. A few of these flowering shoots will scent a large room, and surely such a plant deserves unusual care. It is, however, frequently neglected more from ignorance than carelessness, and the most important duty towards it is to cut hard back, about the middle of March, all weak and old wood. The object of this is to encourage fresh shoots, which, as a great lover of the Winter Sweet says, "should be trained in the shape of a fan on the wall, and nailed in evenly from 4 inches to 6 inches apart. These shoots eventually become covered with blooms. As the branches lengthen they will throw out lateral growths towards the base. Those which are not wanted for nailing to the wall should be cut back slightly during the summer, and so form what are called spurs."

A few days ago we passed a rough corner of the rock garden, and a warm, nutty scent filled the air; it came from a thick clustering of the Winter Heliotrope, so named from its Heliotrope or "Cherry-pie"-like fragrance. *Tussilago fragrans*—it is a Coltsfoot—is the name of this drab-coloured flower of winter, and it grows almost as freely as the Coltsfoot we know so well. A rough corner where "nothing will grow" cannot be put to better use than filling it with the Winter Heliotrope, which loves that shade, and is just the plant for the front of the shrubbery when it is not overhung by trees.

No description of winter flowers would be complete without naming the *Glasnebury Thorn*, a variety of our Hawthorn. The legend is too familiar to repeat. The shrub flowers in winter when the weather will allow it to, but the buds cannot, as a rule, expand owing to frost. And we must not forget the Winter Jasmine and the two December-flowering Honeysuckles.



THE PURE WHITE FLOWERS OF MAGNOLIA SALICIFOLIA.

again under the warming influence of the sun, and the red and purple blooms, sometimes self and sometimes interrupted by rich blotches of another shade, reminding one of the spottings on an Orchid, may be gathered for the house. We have heard it said that the Hellebores fade when cut, and so they do unless the stem is split up for about half its length to ensure thorough saturation; but when this is done the flowers last for several days.

A winter picture that for interest and charm brings thoughts of summer days is composed of the Japanese Witch Hazel (*Hamamelis arborea*) and the little Partridge Berry, or *Gaultheria procumbens*. The Partridge Berry, crimson with its wealth of fruits, should form the groundwork of the bed, and the much taller Witch Hazel the relief. It is regrettable that the *Hamamelis* is so seldom planted. When the sun shines on the flower-wreathed shoots the shrub looks like a cloud of gold; the bright yellow flowers are set off by crimson calvers, and the strangely twisted petals have a weird beauty. This shrub

flowers. They were planted in October in sufficiently large holes for the roots to spread out, and in the ordinary soil of the garden, a sandy loam, but in the base of each hole was put some good peat. Although peat is not essential, the Heaths enjoy this provision, and we know this from the wild wastes of heather on peaty moorlands. The mistake was made of not watering the plants in the following summer, when the sun shone pitilessly for weeks. In such a soil and with full exposure to the sky, copious waterings occasionally are needful to prevent the growth absolutely drying up.

Winter Sweet is the pretty and appropriate name of *Chimonanthus fragrans*, one of the most beautiful or wall shrubby climbers and as welcome in the garden in winter as the Christmas Rose. The fragrance is unlike that of any other flower, a clinging honeyed perfume, which, though rich, is not unpleasantly so. We remember the fine plant against a wall in the Duke of Northumberland's garden at Syon, near London, and a quantity of sprays could be gathered for decora-

A NEW MAGNOLIA.

M. SALICIFOLIA.

On the whole the Magnolias must be regarded as the most wonderful flowering trees that can be grown in the average climate of the British Isles. In the dimensions of their individual flowers they far exceed any other trees hardy with us, suggesting, indeed, in their size and in their often heavy, fruit-like perfume, some tropical type left stranded in northern regions. Any addition to the cultivated species is therefore of great interest. *M. salicifolia* was first introduced scarcely ten years ago, and Professor Sargent, writing in 1894, remarked that its flowers were unknown to botanists. It first flowered in this country in 1911 and again the two following years, but not until last spring did it show how beautiful it is going to be when fully grown. The tree is perhaps ten years old, and is about 8 feet high. Ultimately it attains to about thrice that stature—a slender tree with a trunk 4 inches or 5 inches in thickness.

The flowers are of the purest white and about 4 inches wide, the petals normally six in number. The leaves are quite unlike those of any other Magnolia, being 2 inches to 4 inches long and only five-eighths of an inch to 1½ inches wide, justifying, therefore, in their narrowness the specific name. The bark when scraped has an odour like that of the Lippia (Scented Verbena). This tree is found wild on Mount Hakkoda, Japan.

W. J. BEAN.

THE PERGOLA.

THE pergola—a way of gardening borrowed from Italy—has given a fresh interest to the English garden. When strongly built, many vigorous climbing plants may be brought into service; and during the heat of a summer day this cool, comforting, fragrant walk, with the sunlight, perhaps, glinting across the pathway, brings sweet memories of idle days spent in sunny Italy. A pergola should, as I have pointed out, be a solid structure, not reminiscent of the wretched rustic affairs that suggest

Aimée Vibert, Bennett's Seedling, Leuchtstern, Gloire de Dijon, Ards Rover, Alice Gray, Honey-suckles, Clematis graveolens, C. Jackmannii, C. montana, Wistaria, and Vitis Thunbergii or the Japanese Vine. The accompanying illustration of the pergola at Gravetye, Sussex, one of the best pergolas I have ever seen, shows the great beauty of the Wistaria in May. Words fail to describe the grace and beauty of the Wistarias, both multijuga and sinensis, when trained to clothe a well-built pergola.

In Italy the pergola is used for the support of the Grape Vine, and at the same time to give shade to paths. It is not required for the former purpose in this country, but for the support of many

is easy to colour them in lime-wash to suit any building. For association with refined brick buildings, bricks are sometimes moulded on purpose of thinner shape, either square or half-round in plan, the latter being for piers that are to show as round columns. For more ordinary work the piers may be of Oak trunks of a diameter of 8 inches to 10 inches, and it is this form I have adopted. The trunks, if tarred or charred at the butts high enough up to show a charred space of 1 foot above the ground, like gate-posts, will last from fifteen to eighteen years, or have about the lifetime of an ordinary field gate-post. A better and more enduring way is to have the posts of Oak 8 inches square, set on squared stones



A PERGOLA, CLOTHED WITH WISTARIA BETWEEN ARRIVAL COURT AND GARDEN.

a tea garden. These are unworthy of the name, and cannot be too strongly condemned. Pergolas well placed and well made add much to the beauty of a garden, but are the reverse when used without meaning and constructed without any knowledge of the way such structures should be built. Two years ago I built a pergola of Oak—thick stems and cross stems, and though the position of the garden is exposed to every wind that blows, the plants, chiefly Roses, trained against the pillars have flourished in a way that I did not anticipate. Rose Dorothy Perkins has sent its vigorous shoots over the first two pillars—a canopy of flowers at the entrance—and then

climbers that are beautiful either in flower or in leaf.

For our English gardens we are fortunate in having the choice of various materials for the main structure. If the pergola is to be near enough to the house to be in any sort of designed relation to it, and especially if the house be of some importance, the piers should be of the same material as the house walls—brick or stone, as the case may be. Fourteen-inch brick piers laid in cement are excellent and easily made. Such piers may be said to last for ever, and if it is desirable that they should not be red, or whatever may be the normal colour of the brick used, it

that stand 1 foot out of the ground, with a stout iron dowel let into the foot of the post and the top of the stone. In most places, however, local material will be the best guide in choosing what the pergola is to be made of. Larch posts are nearly as good as Oak, and Larch tops are the best of all materials for the top roofing. When Roses are in bloom the pergola makes a fragrant walk, bowered over as it is with the sweetest of all flowers, represented by many old garden sorts which, I am happy to say, have captured the heart of the present-day rosarian. It is to be hoped these favourites of old will never lose their popularity; certainly they will never lose their sweetness. C.

THE GARDENS AT TAYMOUTH CASTLE.

By C. BLAIR.

THE county of Perth is the largest in Scotland, and contains within its boundaries many famous gardens and estates. Taymouth is probably the largest estate in the county; but being by no means easy of access, it has hitherto, so far as I know at least, been less written about than many of the others. The

colour), Barbara, Mrs. Townsend and Florence Nightingale.

Climbing Roses succeed admirably here. A pale pink single variety, American Pillar, with huge pyramidal clusters, was very pleasing trained on high walls. Dorothy Perkins, Lady Gay, Hiawatha and others were also giving a glorious display. Herbaceous plants, considering that they had only



ONE OF THE VINERIES IN THE GARDENS AT TAYMOUTH CASTLE.

gardens and glasshouses are very extensive, and under the present energetic and skilful gardener are likely to again take a foremost place among the leading establishments of the country.

Having a fine southern exposure, and being well sheltered from both north and east, the gardens are much earlier than one might suppose, considering their altitude. The soil is of good depth, moderately free in texture, with a gravelly subsoil. The wet summer has been most suitable for soil of this description. Vegetables of all kinds were looking well; particularly good were Peas, Carrots (of unusual size), Onions, Kidney Beans, Broad Beans, Beetroot and Parsnips. Flowers for cutting are in almost daily demand, and in large quantities, too. Sweet Peas were exceptionally good. One magnificent row, 170 yards long, was alone quite worth the long journey. All the very finest varieties were represented, and many that are known only to exhibitors were blooming in profusion. Walter P. Wright is grown in capital form, and a grand Pea it is, pale blue, without the slightest trace of mauve or purple, the blooms being of large size, fine form and well placed on the stems. Other notable kinds were Stirling Stent, Elfrida Pearson (very fine), Hercules, Edrom Beauty, Scarlet Emperor, Maud Holmes, Thomas Stevenson (grand

been planted a short time, were flowering magnificently. All the usual kinds are grown, and are largely used for room decoration.

To the west of the kitchen garden is a very interesting Japanese garden. Here shrubs and dwarf trees thrive amazingly. Eucalypti, Acers, Spiræas, Azaleas and many more suitable subjects have been successfully blended so as to form a very pleasing whole. In the grounds near the Japanese garden are some particularly fine specimens of the various coniferae. Specially fine is *Sequoia sempervirens*, of which there are numerous grand specimens. Other notable trees are *Abies albertiana*, *A. nobilis*, *A. nordmanniana*, *Cedrus atlantica*, *Wellingtonia gigantea*, Larch (many very fine specimens in perfect health), Plane and Beech, all in fine condition.

At some distance from the kitchen garden, and away up the hill overlooking Loch Tay, is the American garden. From this spot a very fine view of loch, hill and glen is to be obtained, while the various shrubs are of great interest. Near by may be seen a fine specimen of the variegated Oak and a variegated *Rhododendron*, which is by no means common.

It will now be necessary to return to the kitchen garden to note the glass structures, which are on a very extensive scale. To begin with, there are

eight large vineries, and some excellent Grapes were to be seen. Notably good were Black Hamburg, Muscat of Alexandria and Gros Colmar. The Vines in one house, planted recently, showed evidence of good culture, the growth being clean and sturdy. Melons were nearly over, but appeared to have been fine. I noted a new departure in the large Melon-house. As soon as the Melons are cleared off, Mr. Dick has a number of vigorous young plants of *Plumbago rosea* planted in their stead, and trained to the wires for winter blooming. This will be a most useful addition to the supply of bright flowers during the dull season.

Peaches were good, and are cultivated in large numbers. The stove houses are large and numerous, and well stocked with clean, healthy plants. Greenhouses, too, were filled with a general collection of useful subjects.

Much more might be written regarding this beautiful and extensive place. As everyone knows, this fine estate is the property of Lord Breadalbane. It is unfortunate that these gardens are so difficult of access, for Lord and Lady Breadalbane very generously allow the public to visit their beautiful grounds without undue restrictions. The present head-gardener, Mr. John Dick, who has had charge for the last six years, as also his foreman and staff, deserve the greatest credit for the manner in which all the departments are maintained.

DAFFODIL NOTES.

By THE REV. JOSEPH JACOB.

The Royal Horticultural Society's "Daffodil Year Book."—Perhaps a few words will be expected from me after the review and subsequent notes upon that review and the contents of the book which have appeared in the pages of THE GARDEN. I am very grateful for all that has been said; for the collector of material for our annual must necessarily occupy a somewhat lonely throne in his endeavours, and it is to the advantage of readers and compiler alike that suggestions for improvement should be made. The fire of the critics has been mainly directed upon the division of Dr. Lower's crosses into successful and unsuccessful, and the question of pictures.

Suppose a person carefully depollinates his flowers long before the anthers burst, and then brings pollen from elsewhere and, having placed some of it on the stigmata of the aforesaid flowers, then gets seed, what word should be used to describe that operation? If "successful" is too much "all things to all men," and must in consequence be ruled out of court, will someone let us have an appropriate epithet?

But I will yield to no one when from the point of view of having aroused interest in the contents of the Year Book I claim that "successful" was about as happy a word as anyone could find to describe the good Doctor's operations when he was rewarded with those "shining black pearls" which are the joy of the human bee.

Had a more scientifically correct word been used, we would not have had either "Novice's" article, issue December 4, or the Rev. G. H. Engleheart's on page 613. "It's an ill wind that blows nobody any good." With respect to the pictures, I think I can safely say that they will be better next year. I am sorry that some of them are what they are. I fear I left the posing too much to the photographer, and he in turn was taken in

by the plates, which, owing to war conditions, were not what they seemed. However, *experientia docet*. The introduction of colour is very largely in higher hands than mine. The Council and Secretary have always met me in a most handsome manner, and I must remember that the money bags of the society are not as full as they were in pre-war times. Then, again, time does wonders; it gives us new flowers and raises up new celebrities, for "The old order changeth, yielding place to new."

Sending Bulbs to New Zealand.—Several communications have come to hand about the value of sending *early*. It makes an enormous difference to the future of the bulbs when they arrive in New Zealand. No one is better qualified to speak about this than my valued correspondent Mr. Robert Gibson of Riverlea, Taranaki, who for many years has been and still is an importer from the home country and Australia on a large scale. Witness, for example, his little importation in 1915. Annette, Athelstan, Berseker, Bert Sands, Best Man, Brilliancy, Buxted, Ciceley Mander, Colossus, Clipper, Conqueror, Dragoon, Eastern Maid, Ethereal, Eugene, Bath's Flame, Finespun, Felspar, Goldsmith, Golden Idol, Heroine, H. C. Bowles, Inglescombe Phoenix, Kestrel, Kingdom, King Solomon, Livonia, Lady Superior, Lady Mayoress, Masterpiece, Mogador, odoratus rugulosus maximus, Onslaught, Potent, Queen of Hearts, Red and Gold, Silver Spangle, Swashbuckler, The Doctor, Vestal Virgin, Wendy, White Emperor, White King, White Penant and Yellow Poppy. "I find," he says, "that the bulbs that arrive here in the middle of August are the best; they bloom about the end of December and die down in April. They flower again in September, and they are then in the right season for another year and have made a good increase; whereas those arriving at the end of October only make one growth in fifteen months." This is worth knowing. Doubtless some have wondered what happens to newly imported bulbs. Now we are told by one who knows. Mr. Gibson also suggests as a corollary that growers should send out their lists so as to arrive in New Zealand at the end of April, or *at the latest* in early May.

My correspondent Mr. Trevena of South Dunedin also has written, laying stress upon the value of having bulbs sent out early.

A Good Yellow Giant Incomparabilis.—On April 17, 1915, a letter from "Ornatus" appeared, asking readers to name the best. A reply has come from Mr. Gibson which I feel sure will be of great interest to Daffodil people. He says: "The best I know of are Giraffe, King Cup, Royalty and the New Zealand raised seedling Hon. R. J. Seddon. These are all good growers, and have good tall stems. Helios has been disappointing with me so far, but it may be better another year after it gets more acclimatised." Hon. R. J. Seddon was raised by Mr. Biggs

of Hereford Street, Christchurch, from whom it can be obtained at £2 ros. a bulb. It evidently does very well with Mr. Gibson.

A "Tip" for Transplanting Daffodil Bulbs with Roots.—It may not be generally known that Daffodil bulbs, after they have made a considerable quantity of roots, may be safely transplanted in open weather, provided care is exercised when they are taken up not to injure the roots, and also when replanting. In old flower books (for example, in the French edition of Passeus and elsewhere) pictures are given of "transplanters," which were hollow cylinders cut in two, lengthwise, and joined by long pins running in small hollow tubes fixed to the edges. They seem to have been especially connected with Tulips. Mr. T. Batson of Beaworthy, North Devon, the raiser of Chryseis, Melpomene and other good varieties, has a much simpler planter, which he tells me he uses and finds A 1.

It is nothing but an ordinary flower-pot of a suitable size with the drainage hole slightly enlarged. His *modus operandi* is as follows: A hole large enough to hold the size of flower-pot chosen is made in the ground. The bulb is then placed in the pot with the growing nose in the drainage hole and the roots rising up to the top. The pot is then filled to the brim with soil,

A BEAUTIFUL PLANT FOR THE ROCK GARDEN.

SAXIFRAGA DR. RAMSAY.

THIS beautiful plant is a hybrid between *Saxifraga longifolia* and *S. cochlearis*. As might be expected from two such handsome and graceful parents, the offspring has proved to be one of the most charming members of the whole of this extensive and valuable family of rock plants. With the pretty habit of *S. cochlearis* is combined some of the vigour and size of the other parent, resulting in a happy blending of the good points of both. In the rosette it is more nearly allied to *S. cochlearis*, with larger spoon-shaped leaves. In the autumn these take on a brilliant ruddy tint, especially if the plant is slightly starved. The inflorescence is also of the same character as *S. cochlearis*, but more robust, while the flowers are larger, the white petals being sprinkled with pink dots.

It is a sun-loving plant, thriving well on a rocky ledge with a southern aspect, as shown in the illustration. It is planted in loamy soil with plenty of rubble mixed with it. The numerous



SAXIFRAGA DR. RAMSAY IN A SUNNY POSITION.

keeping the roots all the time well spread out. The hand is now put over the top to keep in the contents, and it is placed in the hole already made and the pot is withdrawn. All is made firm and covered over. This may sound a faddy counsel of perfection; but when silver and golden bulbs are being moved we want to be more careful than when dealing with, say, *Barrii conspicuus*. Hence Mr. Batson's "tip" may come in handy, and like many another useful hint it is very simple and easily carried out.

offsets supply a ready means of propagation. They may be taken off at any time in early summer, inserted in pots of light sandy soil and placed in a close frame. Here they soon root, and are ready for potting off singly in the early autumn. The two parents of this charming hybrid are most distinguished members of the genus, *Saxifraga S. longifolia* has been appropriately termed the "Queen of Saxifrages," while the pretty tufted rosettes of *S. cochlearis* are well known to lovers of Alpine flowers. W. I.

THE GREENHOUSE FOR FOOD SUPPLY.

BY WILLIAM F. ROWLES.

Introduction.—My intention in this series of articles is to show how we may grow and mature fruit and vegetables under glass, and how we may forward others for planting them outside earlier than could be done by relying only on an outside sowing. Those which may be brought to maturity inside are Vines, Peaches, Figs, Strawberries, Melons, Seakale, Rhubarb, Asparagus, Mushrooms, Tomatoes, Cucumbers, Dwarf Beans, Potatoes, Carrots, Radishes, Lettuces, Peas, Cauliflowers, Turnips, Beet, Marrows, Mint, Chicory and Endive. Those which may be brought forward under glass and subsequently planted out are Cucumbers, Tomatoes, Beans (Dwarf, Broad and

come under the same treatment. Water the borders well, syringe the Vines and Figs every fine day, allow only a little air during the warmest part of the day, and close the house not later than 2 p.m. The starting of the Vines affords us an opportunity to introduce a few Strawberries. Clear off bad leaves, loosen the soil, top-dress with Clay's Fertilizer or Peruvian Guano, and firm the soil again. Syringe them daily. Peach trees will now need to be pruned and painted over with a winter dressing, taking care not to damage the buds. Tie the growths neatly and securely.

Potatoes will be planted in a frame, in deep boxes or in pots, and another batch will be put in at

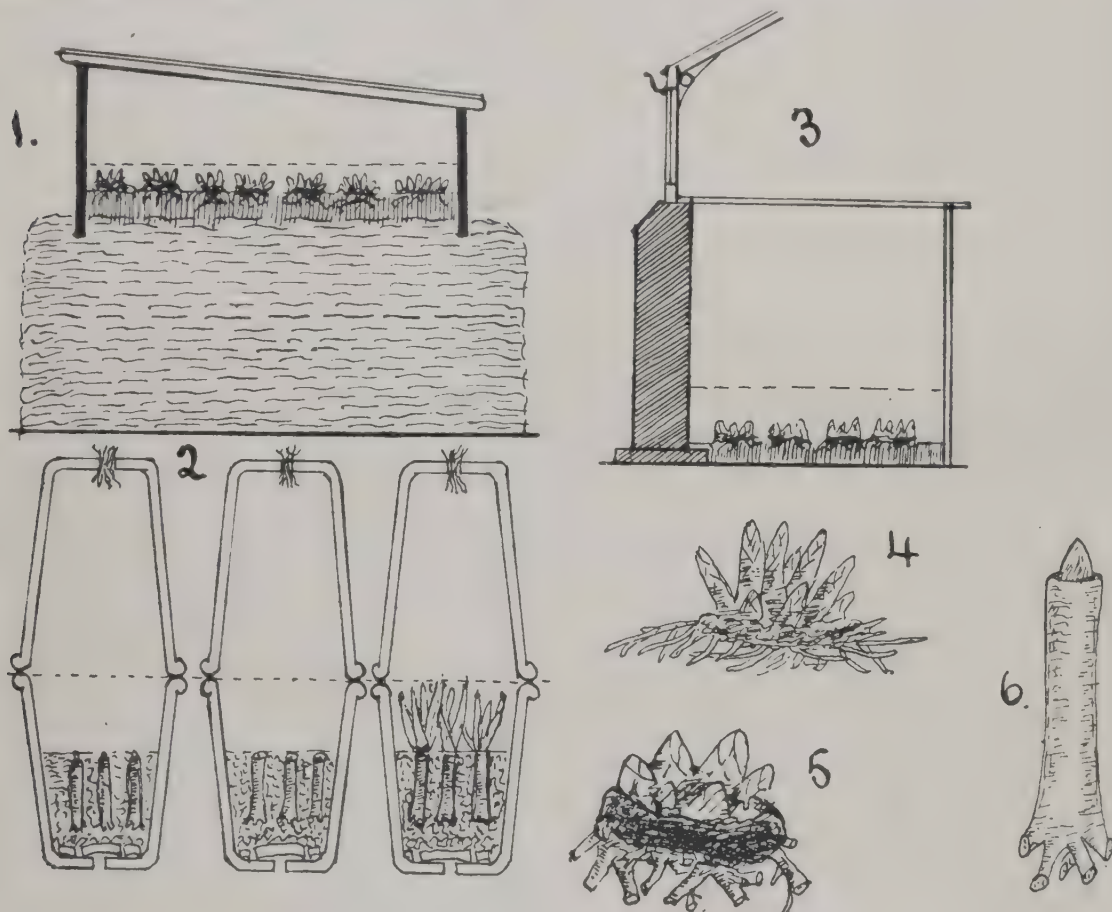
Leeks and Parsley towards the end. All of these will be sown in boxes. Those which are sown early in the month will need pricking off before the beginning of February.

Asparagus, Seakale and Rhubarb.—If we adopt a policy and a system, we may easily produce a supply of early Asparagus, &c., without depleting our stock in the garden. To maintain our supply in youthful vigour and productiveness, we must make it a policy to dig up a certain quantity of Asparagus each year, and to sow or plant an equal area. Sowing will commend itself as being most economical, and when we get the system into working order we shall be able to keep up our supply in the garden and have sufficient for forcing almost automatically. A like policy should be pursued with Seakale and Rhubarb. In the case of the former, whenever we dig up forcing roots we will cut off the roots from the stem bearing the crown, and use them for planting a portion of ground in the spring. With Rhubarb we will plant out the roots after forcing, and not use them for forcing again for several years. I want my readers to work systematically and economically, and not allow early forcing in any way to lessen their outdoor supply.

Asparagus is usually forced in a heated pit or in a frame standing on a hotbed. I shall have occasion later on to tell how to make and manage a hotbed. A layer of soil is put in the frame about 6 inches thick, and the roots of Asparagus, after being carefully dug up with the least injury, are laid closely together in the frame. They are then covered with soil and are given a good watering at the rate of about a gallon and a half per square yard. The lights are then put on, and only a little air is allowed during the warmest part of the day. The lights are covered with mats during cold and frosty weather. Asparagus may also be forced by planting the roots in a deep box and putting this in a warm greenhouse.

Seakale needs darkness to blanch the stem, and this applies also, of course, to the outside crop. Good stout crowns, about 1½ inches to 2 inches in diameter, are chosen, the roots are cut off for making a fresh plantation, and these crowns are put into large pots. Six or eight may be put into a 9-inch pot. Soil is packed round so as to nearly cover them, and, after being watered, another large pot is inverted over them. They may then be forced beneath the staging of a warm greenhouse. Deep boxes may also be used for these, if desired, instead of pots. After cutting the main growths we often get other pieces, though they scarcely remunerate us for the room they occupy. It would be better to maintain the succession with fresh roots brought in every two or three weeks.

Rhubarb does not necessarily need darkness, though we get the produce earlier if we keep it dark. This also may be grown in deep boxes; or if a fair quantity is required, it may be put on the floor of the greenhouse beneath the staging, and be covered with soil or leaf-soil. It is found that Rhubarb forces much more readily if exposed to frost, so I would not advise lifting it from the ground until we have had a few autumn frosts. It is quite possible, of course, to get Rhubarb in for Christmas if we can command the heat and if we have a sufficient supply to keep up a succession. Considering what little attention it needs, and how useful the produce is for tarts, &c., I would certainly advise every reader with a greenhouse to grow some of this delicious vegetable.



FORCING VEGETABLES.

1. Forcing Asparagus in frame over hotbed; dotted line represents covering of soil. 2. Forcing Seakale in pots. 3. Forcing Rhubarb beneath staging of greenhouse; dotted line represents a covering of leaves. 4. Root of Asparagus for forcing. 5. Root of Rhubarb. 6. Root of Seakale.

Runner), Potatoes, Parsley, Lettuces, Peas, Cauliflowers, Beet, Marrows, Brussels Sprouts, Cabbages, Onions, Leeks, Celery and Celeriac. Few readers would have the space, even if they had the inclination, to grow or to forward all of these; but many will, no doubt, wish to make the utmost use of their glass accommodation for the purpose of providing valuable food for their table, and of rendering their vegetable garden far more productive than it otherwise would be. Here they will find such advice on the subjects which they choose, showing the methods which the writer has himself adopted with success.

What Should be Done in January.—In gardening there can be no real beginning nor end to the year, but in the forcing department, at any rate, January has more claim to that title than in other departments. In the matter of fruit, a beginning may be made with most subjects. We may start our Vines slowly at a temperature of 50°. If the Fig is in the same house, that will

the end of the month. Mustard and Cress will be sown in boxes each week. A hotbed will be made up for sowing Carrots and Radishes. Chicory will be potted up and brought into a warm house. Tomatoes, Cucumbers and Melons will be sown, the first named in a pan and the last two in small pots. Peas intended for fruiting inside will be now nicely up from a December sowing. They must be kept cool. Dwarf Beans will be sown in pots every fortnight. A few roots of Mint will be put into a box and be brought into heat. Cauliflowers from the cold frame will be moved to 5-inch pots. Lettuces will be planted on a mild hotbed. Manure will be prepared for making up a Mushroom-bed.

In regard to those plants which will be forwarded in the greenhouse and planted outside later, there are several items of work during January. Sowings will be made of Peas and Broad Beans, Onions, Cauliflowers, Lettuces, Cabbages during the first part of the month, and of Brussels Sprouts, Celery,

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Peaches and Nectarines.—The trees in the earliest house are advancing, and the flowers will soon be open; but just prior to this stage being reached the division may be vaporised with some fumigating compound to destroy green and black fly. When the flowers are fully expanded, the night temperature should be 50° to 55° if the weather is mild (5° lower if cold and frosty), with a slight rise during the day. The atmosphere must be kept fairly dry, and a bright day should be chosen for pollinating the blooms. This is done with a rabbit's tail tied on a thin stick, and by giving the trees a shaking about midday. When the flowers are set, the trees can be syringed twice daily, and a genial atmosphere promoted by damping the floor and border in the morning and early afternoon if the weather is favourable. The ventilators must be opened when the elements are suitable. The inside border must not be allowed to become dry, but water ought not to be afforded in such quantity to make the soil sodden and sour.

Kitchen Garden.

Broad Beans.—A row or two of these may be sown on a warm border; but if an earlier supply is needed, seeds may be placed singly in 3-inch pots filled with soil, when they will soon germinate if put on a mild hot-bed. Harden off before planting the seedlings in their permanent quarters, and give slight protection from cold winds.

Rhubarb and Seakale.—More roots and crowns should be lifted and placed in the Mushroom-house or heated pit, and roots in the open may be covered with pots and surrounded with stable manure and leaves. These will succeed those placed inside.

Early Cauliflowers may be sown in boxes, and directly the seedlings appear they must be kept near to the roof glass. A little heat is essential in the early stages, but later on abundance of air is necessary, and they must be grown as hardily as possible.

Plants Under Glass.

Winter-Flowering Begonias.—These constitute a useful group and are easily grown, especially the Gloire de Lorraine type. This group as they pass the flowering stage may be cut back, and after a week or two they should be placed in the stove and sprayed over occasionally. The plants will soon produce strong shoots from near the base, which will make excellent cuttings for next season's display. Begonia elatior, B. Optima, &c., will need a rest of several weeks, but they ought not to be dried off to any great extent. A portion of the stem must be retained, if possible; hence the necessity of giving water at intervals.

Flower Garden.

Montbretias.—These delightful bulbous plants may now be planted 2 inches deep and a similar distance apart on a sunny, well-drained border. Bold masses are always attractive, but a few plants in beds devoted to Azaleas, &c., are very effective. If the weather is frosty, a layer of dry litter or Bracken should be used to protect the bulbs. Groups that have not been disturbed for several years may be lifted and replanted, and the smaller offsets may be discarded, unless it is desired to increase the stock. If so, they are best planted in a separate bed, where they will develop into plants of flowering size. Montbretias are excellent subjects for producing a display in August.

Sweet Peas may be sown in pots at this season for planting out later on. Some growers place one seed in a small pot, but for general purposes three or four seeds may be planted in receptacles 3 inches in diameter. They must be grown as cool as possible, and, when a little headway is made, the pots can be removed to a cold pit where frost is excluded. Before planting in the open the seedlings must be well hardened off.

The Rock Garden.—When the weather is mild and dry, the plants may be examined and all dead leaves and rubbish removed. Weeds should be pulled out by the root, and plants that have overgrown their stations cut back. Tender

subjects can be protected with a sheet of glass or conifer boughs during severe weather. A note should be made of any dead plants, which can be replaced at once or at any time before March.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)
Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

Kitchen Garden.

Tomatoes.—Seeds may be sown now for early crops; if sown in pans and placed in a temperature of 60° they will soon germinate. As soon as the seedlings are through the soil, they should be placed near the glass, otherwise they will become drawn. When large enough to handle they may be pricked out singly in small pots, from which they can be potted into their fruiting pots or planted in a prepared border.

Cauliflowers.—Seeds of an early variety may be sown now in boxes to provide an early crop; they may be germinated in a brisk heat, but afterwards grown fairly cool. Early London is still one of the most reliable sorts for earliest work. Autumn-sown Cauliflowers that were pricked out in cold frames should be carefully aired on all mild days, else they will grow too large and soft for transplanting later on. I prefer a frame with only wire-netting for sides and ends, with a glass covering, as then the plants remain sturdy without any further attention.

Mushrooms.—Fresh beds should be made up at regular intervals to provide a continuous supply. The horse-manure should be thoroughly prepared in an open shed before being used; if thrown into a heap and spread out again on alternate days for about a fortnight, it should be about right for placing in the bed. The material must be rammed tightly, afterwards placing a bottom-heat thermometer in it. When the temperature has risen and fallen again to about 80°, the spawn, in pieces about the size of a hen's egg, should be inserted 2 inches deep, afterwards covering with half an inch of fresh loam.

Parsley.—Where this is grown in pots to supplement the outside supply, the pots should now be placed in a position where they will get a slight heat to induce fresh growth. A little stimulant may also be given.

Cucumbers may also be sown now if a good command of heat is available for continuous growth.

Flower Garden.

Seeds.—Several kinds of seeds may now be sown, such as tuberous Begonias, Delphiniums, Antirrhinums and Pentstemons. Although these would do at a later date, it is well to get some of them in hand early, as it serves to relieve congestion later on.

Chrysanthemums.—The stools of these that were lifted and placed in frames are now showing growth, and cuttings should be secured. As soon as they are large enough they should be dibbled into sandy soil and placed in a somewhat cool and close pit to root.

Violas.—The frames containing these and other hardy cuttings should have air admitted freely whenever the thermometer is above freezing point, and all decayed foliage removed.

Plants Under Glass.

Calanthes, when finished flowering, may be shaken out of their pots and placed for a time in a warm and dry position to rest.

Eucharis.—The plants that have recently carried a crop of flowers and are now making leaf growth should be gently stimulated. A little soot added to the water seems to suit these plants admirably, but overwatering must be avoided and ample drainage provided at all times.

Sweet Peas.—If these were sown in autumn for flowering in the greenhouse, they will now be ready for their flowering pots. Three or four plants will be sufficient for a 10-inch pot. Keep them near the glass as long as possible, and train each shoot to a stake.

Carnations.—Cuttings of the Perpetual-flowering varieties may be put in now. If put singly in a

sandy compost in 2½-inch pots and placed in a propagating-frame they will root readily. Afterwards transfer them to a more airy situation near the glass. Firm, short-jointed shoots should be elected.

Chrysanthemums.—The bulk of the late-flowering Chrysanthemums may now be propagated. I find January a very suitable time for taking cuttings of most of the decorative varieties. They root quickly at this season, and are soon ready to pot on.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)
Glamis Castle, N.B.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS
TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

CHRYSANTHEMUM TO NAME (F. G.).—The flower you send is a sport from the white variety H. W. Thorp. It is not a full sport, however, and cuttings, rooted from the stem, may bear quite distinct blooms, or they may revert to the original variety. To fix the sport, you must cut away all old stems except the one bearing the sport flowers. Lay this stem its full length in sandy soil on a bench or stage; keep the soil moist and also that of the old ball of soil. When shoots grow from the layered stem and are long enough, insert them in the usual way as cuttings.

HOW TO PROPAGATE POLYGONUM BALDSCHUANICUM (N. M.).—This plant is rather difficult to increase by cuttings, but we have succeeded by inserting cuttings of short shoots in July in pots of sandy soil in a close frame. Some people have also succeeded in rooting a small percentage of cuttings of sections of ripened shoots, 9 inches to 12 inches long, placed out of doors in a sheltered border in October. Such cuttings were buried except for the upper 3 inches. A more efficacious method of propagation, however, is to layer branches firmly in light soil in March, leaving them undisturbed until the following autumn. They usually form roots during summer.

WATER LILIES (Shah).—The depth of water you name—6 inches—is not sufficient for Water Lilies, by which, of course, you mean Nymphaeas; and there are no blue Water Lilies that are quite hardy. The forms of Nymphaea stellata and others akin give blue flowers, but require to be grown in artificially heated water. In pink and yellow there are some very beautiful varieties which would meet your requirements, given certain modifications. That is, if you can reverse the present order of things and have, say, 6 inches or so of mud and the remainder water, you might grow N. Laydekeri rosea, N. Marliacea carnea, N. odorata sulphurea and

N. *Marliacea chromatella*, the last two of yellow shades. There are no others in the colours you name that float out on the surface of the water so well as these. You might plant them now or wait till the end of March ensuing. Simply weight them down into the mud bottom by means of a stone or other weight attached to their rhizomes.

SCOLOPENDRIUM (A. D.).—The title "a new Scolopendrium" attached to the plant of which we recently gave an illustration was not strictly accurate, though it would be quite new to many hundreds of our readers. We ourselves have never seen so fine a specimen, and the fact that it was shown by a leading Fern specialist and that it gained a first-class certificate says much both for its rarity and excellence. Are you sure of the identity of your plant? We ask the question advisedly, inasmuch as there are several forms of the *crispum* Hart's-tongues that in a photograph might appear to be identical with that illustrated, but which, in fact, are quite distinct. In any case, you are fortunate in possessing any one of these in such quantity. At the same time, you appear unfortunate with it, and the fact that all the divisions have perished points to mismanagement somewhere. Perhaps if you gave us a few particulars of how your plant was grown, we might assist you. If you could send a specimen frond or small plant, we could determine what variety you really possess.

EDGING FOR KITCHEN GARDEN PATH (A. W. R.).—From the standpoints of permanency, utility and cheapness combined we should use either brick or stone; and as there is sandstone not far from you, this would do quite well. At the same time, brick set on end and so tilted to form a saw-edged top surface would be the most

quite a low-growing kind. As regards the beds themselves, I had thought as follows, bearing in mind that I have a good herbaceous border elsewhere: J, *Anemones* (coronaria) in spring, *Chrysanthemums* in autumn; K, *Phloxes*; L, *Nigella*, *Lupines* and *Aquilegias*; M, *Gladioli*; N, *Stocks*; O, *Scabiosa caucasica* and *Gypsophila paniculata*. As I presume the planting should not be done until the spring—at all events, for most of the things—there is plenty of time to answer my queries in THE GARDEN. Would a *Cydonia japonica* and *Tropæolum speciosum* grow on the north wall R, S, and *Clematis Jackmannii* at end of tool shed; or what do you recommend? I have purposely confined the same description of border plants to each side of the various borders, as I think this looks better. Starting from the house, we should first catch sight of the path A to B, bright red gravel, with *Pinks* on either side, and follow along the *Lavender* walk to C, with *Monthly Roses* at the back of the *Lavender* to form a break with the vegetable garden. The rest suggests itself. The point that I am most anxious about are the border plants and the centre bed.—W. D. [You ask for our advice, and, to be quite candid, we consider the narrowness of the paths in conjunction with the plants selected for them a fundamental error. For example, the 18-inch or so wide path E to H would be overwhelmed by such plants as *Nepeta Mussinii*, *Salvia virgata nemorosa* and *Artemisia stelleriana*, which you propose putting there. We should hesitate indeed before employing the first two, which attain to 2 feet and 3 feet high respectively, even in a 4-foot wide path, while the *Artemisia* is even more unsuitable. And while the paths, as we think, are all too narrow, you appear to have gone strongly for prostrate-habited plants of

glass, either for cutting or greenhouse decoration. White: *Elsa*, *Mensa*, *Grace Darling*, *Mrs. A. K. Bowstead*. Yellow: *Altrincham Yellow*, *Golden Mensa*, *Charles Kingsley*, *Isobel Felton*, *J. H. G. Williams*. Pink: *Miss E. Partridge*, *Margaret Sargent*, *Hilda Lawrence*. Red: *Roupeil Beauty*, *Mrs. Walter Hemus*. We do not know the varieties No. 1 Red and No. 1 Pink. Write to a firm of nurserymen advertising in THE GARDEN and make enquiries. They would obtain the varieties for you if such are on the market. The varieties named above will yield a supply of flowers from the end of October till Christmas.

AZALEA LEAVES FOR INSPECTION (T. H. O. P.).—The *Azalea* is badly attacked by thrips, and red spider has also been on it, we think. It is not clear from your letter whether it is planted out or not. If it is, spray it at intervals of a week, until it is clear of the pests, with a nicotine wash used according to the manufacturer's directions; if not, dip the foliage in a wash made by kneading flowers of sulphur into a handful of soft soap and dissolving the whole in 1½ gallons of water.

FRUIT GARDEN.

MAGGOTS IN RASPBERRIES (F. M. L.).—It is seldom that the fruit of the *Raspberry* or the *Loganberry* is attacked by maggots until it has been ripe for some time. When they do appear, it is a sign of decay, and also a hint that the fruit should have been gathered some days before. To avoid loss from this source, the best thing to do is to gather the fruit earlier and more frequently, especially in damp weather, as this is conducive to an attack by the maggot.

PIG-MANURE FOR STRAWBERRIES (F. M. L.).—Raw pig-manure (although a powerful fertiliser) is a cold, clammy material impervious to air and heat, and therefore unsuited to apply as a top-dressing to fruit trees or *Roses* in winter. The best way to utilise this manure is to mix with it a quantity of light soil, leaf-mould, road scrapings and a liberal dressing of lime (collectively equal to its bulk), well mixing together and forming into a heap. Left in this condition until spring, slight fermentation will set in. This will help to ripen and mellow the manure, converting it into a valuable fertiliser for such crops as *Cabbages*, *Cauliflowers*, *Celery* and *Brussels Sprouts*. Leaf-mould, with an addition of a handful of bone-meal to a gallon of the mould, would make a much better top-dressing for the subjects mentioned.

PRUNING VINES (F. C.).—All Vines should be pruned before the middle of January. If left unpruned later than this, there is danger of the Vines bleeding (meaning the sap oozing from the cuts). Once this takes place, it is difficult to stop, and the consequence to the Vines is often serious. To be on the safe side, prune your Vines at once (both black and white, late and early). The way to prune them is to cut back the shoots which have borne the Grapes of last year to within two buds of their base. When these buds begin to grow in spring, let the strongest grow into a shoot to produce the fruit, and rub off the weakest (one shoot only is wanted). After pruning has been completed, rub off the loose bark from the Vine stems with the hand, and then paint them over with a weak solution of Gishurst Compound, to be had of all seed merchants and horticultural sundriesmen advertising in THE GARDEN. Directions are given with each packet as to the strength to use (apply under rather than over strength). The object of this dressing is to destroy the larvæ of any insects concealed in the bark. Keep the viney perfectly cool and well ventilated to give the Vines perfect rest until they start into growth again in spring.

MISCELLANEOUS.

THE "DAFFODIL YEAR BOOK" (A. E. G.).—This work is published by the Royal Horticultural Society, Vincent Square, Westminster; price 2s. 6d.

TO KEEP STAGNANT WATER CLEAR (H. S. S.).—It will be almost impossible to keep the water clear in a tank such as you describe, where there is no regular flow of water. In the absence of rain for a few weeks the water is bound to become stagnant. Slime can be killed, and probably the larvæ of the gnats, by adding sulphate of copper to the water at the rate of 2½ oz. to 10,000 gallons of water, but this will not keep the water from becoming stagnant. Water Lilies and other water plants can be planted in mounds of soil placed on the bottom of the tank.

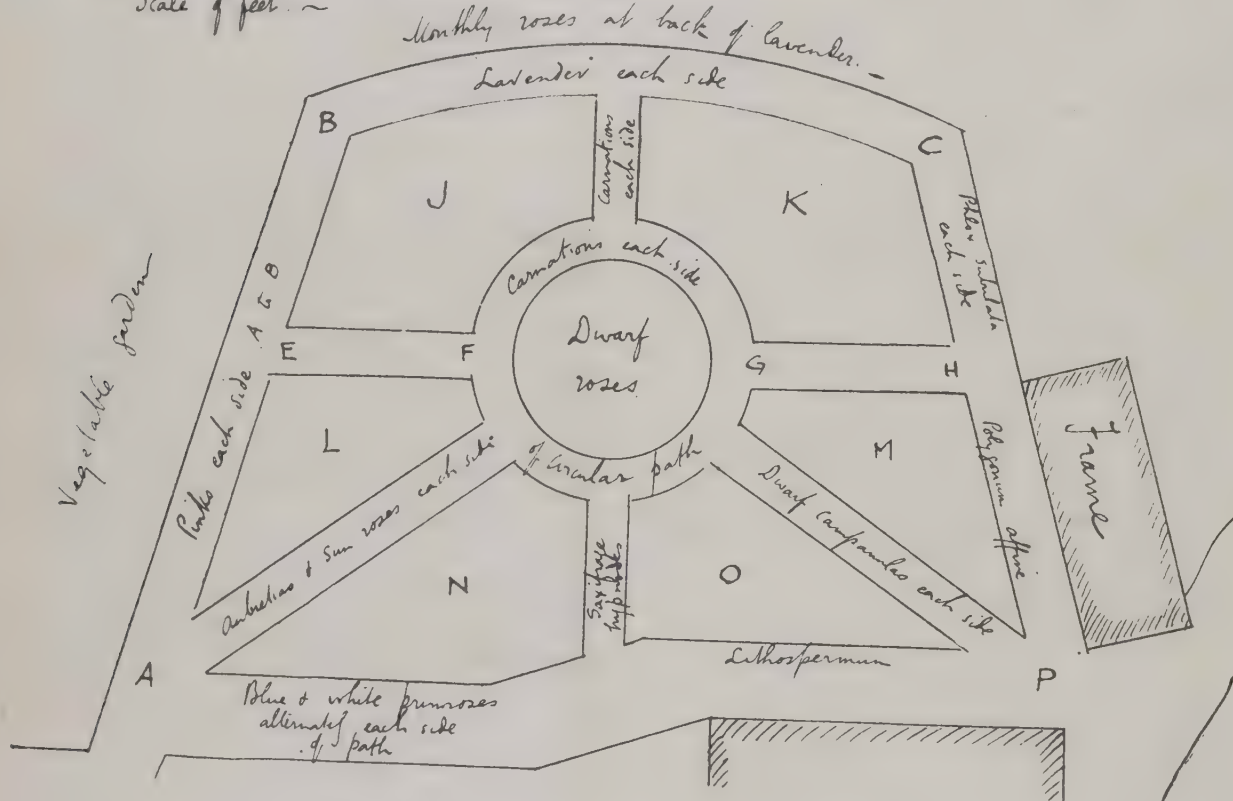
GARDEN SOIL FOR EXAMINATION (R. F. C.).—We have examined the sample you send, and find it has a tendency to sourness. It would be well to mix some slaked lime or some chalk with it in the autumn, digging it in at the rate of about half a bushel to the square rod. Instead of this, you may with advantage use basic slag, if you can obtain it, at the rate of 40z. to the square yard. The drainage may possibly be at fault, and, if so, it should, of course, be corrected.

NAMES OF FRUIT.—H. C. M.—Apple *Waltham Abbey Seedling*. There is nothing injurious in the growths on the Apple tree. If pieces were put in firm soil, i.e., a branch with the growth attached, they would root and make trees. The *Paradise stock* makes such growths freely. No doubt it has spread from the stock to the tree.

NAMES OF PLANTS.—C. A. P. O., *Norwich*.—1, *Berberis Hookeri* (*wallichiana*), *Himalaya*; 2, *B. buxifolia* (*dulcis*), *Chile*.—E. A. L.—1, *Gilia coronopifolia*, a Californian annual or biennial well known in gardens—it varies in colour from scarlet to nearly white; 2, *Thevetia nerifolia*, a native of Central America and the West Indies—it belongs to the *Periwinkle* Order, *Apocynaceæ*, and is figured in the *Botanical Magazine*, t. 2309.



Scale of feet.—



A READER'S PLAN OF FLOWER BEDS.

easily done, and be capable of retaining its position owing to the depth of the brick, of which rather more than a third at the highest point should appear above the pathside. This arrangement would enable you to apply the weed-killer to the path with safety. Tiles, of course, would answer the same purpose; but these, while more expensive to start with, also require to be set in concrete or cement to keep them in position, which makes an edging of such things of any extent rather costly. You speak of "brick on edge," and you will note that we prefer "brick on end" to produce the saw-edged top.

LAYING OUT FLOWER-BEDS.—I am laying out a portion of vegetable garden here to form flower-beds, as shown on the enclosed sketch to scale. I am anxious to make an attractive plot, and would be glad of your advice through the medium of your valuable paper. The situation is a fairly open one, but there are fruit trees and *Poplars* all round about 10 yards away from the nearest paths shown. The paths which are shown, about 1 foot 6 inches to 2 feet wide, are to have an edging of dwarf plants—no edging tiles, &c.—gravel paths throughout. I am most anxious about the plants, and would like to know whether you agree with my suggestions shown on the sketch. I want them to be attractive and to flower as long as possible without the aid of bulbs. The planting of paths E, F, G, H, is done on the suggestion in Messrs. Barr's catalogue, page 52, under "*Salvia*." *Veronica Teucrium dubia* is a good plant for flowering; hence my suggestion to put bits of it in the three paths radiating from the south of the centre bed. (See note at top right-hand corner of sketch.) What do you recommend for the dwarf Rose-bed? I have a rosary in another part of the garden, and only want one kind of Rose in this bed, a bright pink which will flower as long as possible,

generally free or even vigorous growth. *Polygonum affine*, *Lithospermum*, *Saxifraga hypnoides*, *Veronica Teucrium dubia*, *Aubrietias*, *Sun Roses* and *Phlox subulata* are examples that appear on the plan you submit. Such things would be quite right with paths 4 feet or 6 feet wide, but for 18-inch and 2-foot wide paths, particularly as they have to constitute the edging in each case, they are in some instances quite unsuitable and in others certainly not the best. In the circumstances, as it appears practically impossible from the plan that the paths can be increased in size to any extent, it seems to us you require a new selection of plants, those generally of a more moderate, stay-at-home growth. If this should meet your views, we will give you names on hearing from you. For the bed marked K you give "*Phloxes*," but does this mean *Phlox Drummondii* or the herbaceous sorts? L with *Nigella*, *Lupines* and *Aquilegias* would be overdone, and the last named would better associate with *Gladioli* in M, with *China Asters* in L to follow the *Lupines*. N and O, adjoining beds, would be out of balance with *Stocks* in N and *Scabiosa caucasica* and *Gypsophila paniculata* in O. The latter are tall and late summer plants, the former dwarf and early summer. We note you have made no use of the *China Aster*, *Godetia* or hybrid *Pentstemons*, all valuable and free-flowering subjects. The *Cydonia* would only do moderately well on a north wall; the *Tropæolum* is a subject for experiment. The *Clematis* would be all right at the end of the tool shed if well planted.]

THE GREENHOUSE.

SINGLE CHRYSANTHEMUMS (C. W. K.).—The following varieties are good ones for flowering under

THE GARDEN.

No. 2304.—VOL. LXXX.

JANUARY 15, 1916.

NOTES OF THE WEEK.

Strelitzia kewensis.—This hybrid *Strelitzia*, as the name suggests, was raised at Kew. It is the result of a cross between *S. Regina* and *S. Augusta*, the former being the seed-bearing parent. The cross was effected in 1898, but it was not until the winter of 1909–10, eleven years later, that the first plant flowered. The hybrid is about 9 feet in height, the large leaves being 2 feet long and 15 inches wide, and petioles 18 inches long. The flower-spathe is horizontal, carrying several vertical flowers, which open in succession. In colour these are pale ochre yellow and blue. As a contrast a few particulars of the two parents may be of interest. *S. Regina* grows from 3 feet to 4 feet high. The flowers are rich orange and violet blue. *S. Augusta* is much taller in growth, having a woody stem more than 10 feet high. The flowers of this, the pollen-bearing parent, are white, set in a purple spathe. These *Strelitzias* thrive best under moist, warm greenhouse conditions.

Sowing Broad Beans.—If a sowing of Broad Beans is made now, it is possible to get a crop that will be fit to gather before the earliest of those spring sown. Unlike Peas, Broad Beans are not so likely to suffer from the frost or damp, but care should be taken to protect them from slugs, which attack them just after they have germinated. If they can be given a dry, warm border, it will be to their advantage.

The Mangosteen.—That delicious tropical fruit, the Mangosteen, has been added to the list of Queensland fruits. Numbers of the true Mangosteen have been grown at the Queensland State Nursery at Kamerunga. The fruit is well grown and of excellent quality. The cultivation of the Mangosteen is practically confined to within 1° or 2° of the Equator, and it is most commonly grown in the Federated Malay States, Northern Java, Sumatra and other places in the immediate vicinity of those islands. The Mangosteen is there considered to be the king of all fruits. It is a pity that stay-at-home Britons cannot taste this and other luscious fruits from the Tropics.

Home-Grown Timber Committee.—The committee have received a very large number of offers of timber, which are being dealt with as rapidly as possible. Some days must elapse, however, before all communications can be

answered. Any lots which are *prima facie* suitable for the committee's purposes will be inspected as soon as the pressure upon the committee's staff will permit. The committee are also prepared to enter into arrangements with the owners of estate sawmills for the conversion of timber. The committee would be glad to be informed of sawmill plant that is idle or not fully employed, in order that, if possible, arrangements may be made

are Scots and Corsican Pine, Silver Fir, Douglas Fir and Larch of good dimensions, in lots of about 20,000 cubic feet and upwards; and plantation Ash of fair size, which will be accepted in comparatively small lots. Other hardwoods of good dimensions are also required, but, as a rule, these cannot be considered in small lots.

Valuable Trophy for a New Seedling Rose.

Messrs. Hugh Dickson, Limited, Royal Nurseries, Belfast, are to be congratulated on winning the \$1,000 trophy at the Panama Pacific International Exhibition for the best new Rose not yet in commerce. This unique award has been won after a most searching trial. The exhibition authorities invited all the Rose hybridists of the world to send for trial the best of their seedlings, the plants to be grown in a specially prepared garden in the exhibition grounds, and there grown for a year before the exhibition opened, so that they would be thoroughly acclimatised and established before the test of judging was undertaken.

The Method of Judging.—Each variety, grown under number only, was judged every month of the period of the exhibition by a group of the leading Rose-growers of America, who awarded points to each Rose competing, the set of judges being different on each occasion. The governors of the exhibition reserve the right to name the new Rose in commemoration of the great engineering feat which the exhibition was to inaugurate, and Messrs. Dickson and the public generally will be greatly interested to hear what name this famous Rose is to bear.

Acer Ginnala.—This species has beautiful, deeply cut foliage, something like what one might imagine a Vine leaf to be like after a forty days' fast. It colours well and consistently every autumn, when it is highly decorative in a shrubby border. It may also be planted in inconspicuous places—such as cut-flower borders—for house decoration, as, when a plant is once well estab-

lished, it may be cut down to within 2 feet or 3 feet of the ground, when long, straight, new growths will shoot out, which, when their foliage has changed colour in October, may be cut and used in vases for house decoration. A striking example was displayed in Messrs. J. Cheal and Sons' fine large group of shrubs at the Royal Horticultural Society's Hall on October 12 last year.



A HYBRID BIRD OF PARADISE FLOWER, NOW FLOWERING IN THE MEXICAN HOUSE AT KEW.

for increased output. All communications should be addressed to the Secretary, Home-grown Timber Committee, Craven House, Northumberland Avenue, London, W.C.

Classes of Timber Required.—Meanwhile, it may be of service to landowners, agents and others to know that the classes of growing timber at present principally required by the committee

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

English v. Latin Plant Names.—The correction in January 1 issue of Mr. Birch's rendering of a satire surely is wrong in the last line, or else the original writer was not adhering to Wordsworth's metre. It should run:

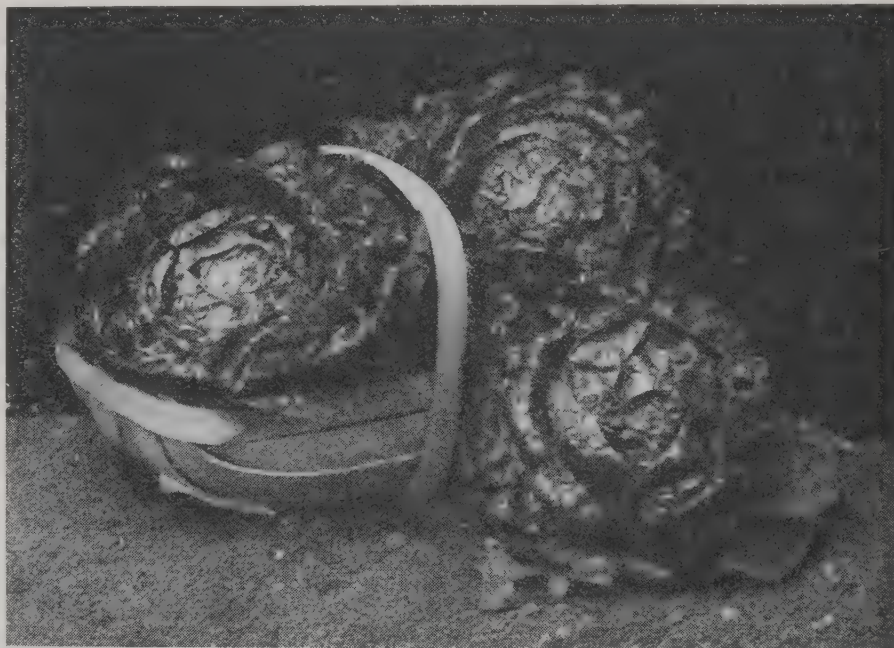
"A primrose by the river's brim
Dicotyledon was to him,
And it was nothing more."

—MADELINE JONES, *Chester*.

Border Carnations.—I have read with interest the letters published in THE GARDEN on these most interesting flowers. Mr. Gibson evidently belongs to that coterie of fanciers who exhibit in the South. Here in the North we have a worse climate to contend with, also no shows of moment. I agree with a good deal of what Mr. Gibson says, but here no borders should be without Brilliant, the finest colour yet produced; Mrs. G. A. Reynolds, from which I have a fine sport, dark orange in colour; and Renown. I have wrestled with Pasquin for five years, but cannot make it grow satisfactorily. We want a good yellow badly; Border Yellow is perhaps the best, and then Solfaterra, but neither is quite satisfactory. I can only hope that what Mr. Gibson says of Daisy Walker will be realised, but it was not very successful here this year. Mrs. J. J. Keen is a poor-shaped flower with me. There are several seedlings and sports grown up North which are quite able to hold their own with many that have been mentioned. Mr. Gibson has probably never seen any of them.—LANCASTRIAN.

Lettuce Sutton's Satisfaction.—Those who wish for Lettuce at this season should make a note of the above variety. It was first offered under the name of Sutton's Record, and recommended as being capable of withstanding dry, hot weather. On our rather light soil the truth of this was soon proved. We were, however, surprised to find it one of the best for sowing in September. It has been our practice for many years to sow weekly during that and the preceding month, setting out the plants on rather firm ground as soon as they had made four leaves. During the latter part of October and the beginning of November the plants are lifted with 4-inch balls of soil and placed 8 inches apart in frames partly filled with a mixture of soil and coal ashes. A good watering is then given and the frame covered with lights, air being admitted in mild weather. Protection is afforded during severe frost, especially to those plants with blanched hearts. As the earliest are used, the frames are refilled from the later batches in the open ground, a supply being usually maintained until those sown in boxes in December and planted out on a hotbed of tree leaves are fit for use.—J. COMBER, *Nymans Gardens, Handcross, Sussex*. [This note was accompanied by a box containing fresh and crisp samples of this excellent Lettuce. It is unquestionably a valuable variety for mid-winter supply.—ED.]

Sagittaria variabilis flore pleno.—In the paragraph on this plant, so well illustrated in your New Year's issue you do not allude to the undesirable habit it has of straying from the place where it is planted. Mr. A. E. Bowles, in his delightful book, "My Garden in Summer," draws attention to this fact. He says: "The Sagittarias are amongst the worst offenders, though some of them could be ranked among the most useful of water-plants if only they would form neat clumps, instead of rushing round a pond by means of underground hollow shoots that produce a solid tuber here and there, which, buried in the mud, starts to grow into a plant next spring, long after the connecting runners have decayed away. Thus you never know where to expect Sagittaria japonica or S. variæformis after the first year of planting, whether at the side, in the middle, or half way up the bank. In both species the large white flowers are very beautiful, and look so well above the handsome triangular leaves that give these plants their names, both Latin and English. Our native Arrowhead, S. sagittifolia, is more inclined to form a dense colony than to wander, but is not nearly so handsome as the other two of the restless habits which are both playing the Wandering Jew in



A JANUARY PICKING OF LETTUCE SUTTON'S SATISFACTION.

the pond and again in my rock garden pools." To circumvent what Mr. Bowles calls the "restless habits" of this plant, and to keep it more or less at home, I find the best way is to fence it round with pieces of slate when planting.—H. M., *Moulton Grange, Northampton*.

Transplanting Daffodil Bulbs with Roots.—On page 21, issue January 8, of THE GARDEN, the Rev. Joseph Jacob writes: "It may not be generally known that Daffodil bulbs, after they have made a considerable quantity of roots, may be safely transplanted . . . provided care is exercised . . . not to injure the roots." What, may I ask, does "safely transplanted" imply in this connection? If it is intended to imply, or even suggest, that no harm ensues, either directly or indirectly, to the bulb so treated, I cannot agree with him. How much "care is exercised" is quite immaterial, since the recommendation in principle and alone is fraught with not a little danger. My own experience is that a bulb lifted and transplanted after it has made any "considerable quantity of roots" suffers appreciably in its subsequent make-up; hence the danger. It

may be that the more continuously rooting sorts suffer least—it is only natural they should. I believe it to be a fairly well recognised fact that the root fibres of a Daffodil bulb disturbed and replanted regain their hold upon the soil very tardily, some not at all; hence all that is bad follows. It is not that the disturbed plant refuses to continue to grow or produce a flower, provided one is present—it does all this—but it is at the expense of a bulb virtually unsupported from the soil through its roots, and a weakened bulb is the reward. In well-tilled ground the natural rooting inclination of a Daffodil bulb is, in the main, vertical. When this has developed to any "considerable" extent, it is next to impossible to lift and replant without injury, and once the extreme tip—Nature's drill in the case—of any root has been broken, that root is powerless of further penetration or extension. What is true of one root is true of all. I got my "tip" from the Daffodil, and probably Mr. Jacob will not dispute the importance of the "fountain head" in such a case.—E. H. JENKINS.

A Selection of Chrysanthemums.—The dates for stopping the Chrysanthemums which "Avon" gives on page 618, issue December 18, make interesting reading. But surely he must have made a slip of the pen when he advises stopping Lady Talbot early in May for first crown, and Amy Poulton in the first week in April. As far as my experience goes with Lady Talbot—and it extends from when it was first sent out—I can hardly believe that if it is stopped as suggested, the resultant blooms will be of any use early in November. I am well aware that with some varieties, one grower may be able to secure buds at the right time without any stopping, while another may have to stop, say, in April to obtain the same result. This, however, does not apply to the variety in question, as it is now almost an old one, consequently opinions do not differ greatly as to its treatment. The best blooms I have seen this season were the result of stopping in the first week of June, and this time appears to be the selected one with most Northern growers. To make this time a certainty, cuttings rooted

early are stopped in March, and again at the time mentioned; there is no danger then of a premature break, say, in May, which would be too early, and if taken would result in a hard bud. Late-rooted plants to be grown in small pots on single stems are only stopped once, about June 12. This method of treating Lady Talbot was, by the way, in accordance with a paper read by Mr. T. Stevenson at the Chrysanthemum Conference on December 5, 1910. Except to give the dates advised by Mr. Stevenson, which read "stop between the 10th and 20th of June," further comment is unnecessary. Amy Poulton is practically a new variety, but by stopping in April, as "Avon" suggests, a second but very late crown bud would be more likely to result than a first; but by stopping at the end of May the buds may be expected about August 12. To the list of "Avon's" I would like to add the rich crimson W. Vert, which should be stopped in the middle of May; and James Fraser, brassy yellow, is best stopped in mid-April, in both cases for first crown buds.—F. J. TOWNEND, *Brentwood Gardens, Rotherham*.

Hedychium gardnerianum in the Open.

In your issue of December 18, 1915, mention is made of *Hedychium gardnerianum*. It may interest "O. M. G., Hants," to know that this and other species of *Hedychium* have been growing outside for a good number of years along a west border of one of the plant-houses in the Botanic Garden, Cambridge, where they are a conspicuous feature from early summer until cut down by frost. Apart from a covering of rough litter thrown over the roots during severe weather, they get no other protection. Other species growing outside are *H. coronarium*, *H. carneum*, *H. spicatum*, *H. coccineum* and *H. angustifolium*, all of which produce spikes of flower freely throughout the whole summer.—F. G. P., Cambridge.

A Lapageria Note.—*A propos* the few references that have appeared on this plant, the following lines may prove interesting and, incidentally, help a good cause by calling attention to the book from which I have culled them, viz., "The Blinded Soldiers' and Sailors' Gift Book": "Josephine induced Napoleon, in the crisis of his fortunes, to think and plot and plan for the fragrance and beauty of new flowers for her garden. French naval captains were instructed to bring back from the tropics and the subtropics new and beautiful flowers for Josephine. The Lapageria was brought to Napoleon from Mauritius, and named after Mademoiselle de la Pagerie, as she was then. The flower is common in English conservatories to-day." (Arnold White.) The above book is full of articles and drawings by eminent personages, all gratuitously done on behalf of the cause of our blinded valiants. Readers could not do better than help such a cause.—C. T.

Apples Newton Wonder and Bramley's Seedling.—Mr. Arnold does well to draw attention to these two kitchen Apples. I have come to the conclusion that Bramley's Seedling as a standard or half standard is superior for that form of growth, as the natural tendency of its branches is semi-drooping, which favours this form of training. My experience in a heavy soil is that it gives an annual crop; none more so. In the case of bush-grown trees, Bramley's Seedling requires more time to mature full crops, as the growth in a young state is extra vigorous. Where space is no object, this can be obviated by an extension of branch growth; but in small gardens this defect is not so easily remedied. Of late years I have noted a serious defect in the fruits of this Apple having small, decaying specks, which is all against good keeping. If this continues, this Apple will have to give way to Newton Wonder, as, no matter what feelings there are in favour of an Apple, if it shows a serious defect sentiment must go. Newton Wonder, by its natural upright habit of growth, is more suited to bush form, and as such is a splendid Apple, more attractive in appearance than Bramley's Seedling, while its constitution is undoubtedly of the best.—E. M.

Fairy Roses in Pots.—What have these tiny creatures done to Darlington and Pemberton, I should like to know? From a perusal of their books on the Rose, one might well infer that they had never heard of them. They do not even "sniff" at them like Ellwanger, who, indeed, does just mention "fairy Roses," but dismisses them thus: "We do not consider them of any value; the Bengals are small enough." I do not intend to claim for them equality with Mme. Ravary, General Macarthur or any of the great general

utility species and varieties, but there is a niche in many gardens which they can appropriately fill, i.e., the rockery. The little people have felt very pleased with themselves ever since the visit of the horticultural giant (Mr. E. A. Bowles), who carried two of them home with him to grace his famous rock garden. They have been there two years now and are as happy as sand-boys. There is a second way in which these little fairies (Roses) can make themselves very useful. They make such jolly little plants in 3-inch or 4-inch pots. Some have deep rose coloured blooms, some pure white; some are double, others single or semi-double; some are sweet, others are scentless. And as they vary in flower, so they vary in habit, but all are small and fairies in their smallness—not dwarfs. The best make beautiful little ornaments for halls and living-rooms, and they are so easily produced and so simple to manage that a periodical batch might often be welcome. To obtain them, I put sixpence in an envelope and send it to Messrs. Thompson and Morgan at Ipswich, and ask for *Rosa polyantha nana*. Back come

A REMARKABLE PRIMULA.**P. LITTONIANA.**

IN a genus comprising over two hundred species, widely distributed in the Old World and also represented in the New World, it is only to be expected that very considerable variation in habit is shown. Previous to the introduction of Litton's Primrose from China by Mr. G. Forrest, nothing so remarkably distinct was known to exist in the Primrose family, and when first exhibited by Messrs. Bees, Limited, Liverpool, hardy plant growers acclaimed it as unique and the most interesting of recently introduced hardy plants. Seen without the foliage, a casual glance at the flower-spike certainly suggests a British Orchid more than a hardy Primrose. *P. littoniana* was discovered by Mr. G. Forrest growing in Yunnan at an altitude of 10,000 feet to 11,000 feet in open mountain meadows. The upright growth of the comparatively long, narrow, greyish green,



PRIMULA LITTONIANA WITH ORCHIS-LIKE SPIKES OF FLOWERS.

a few hips with directions to separate the seeds before sowing, and with the added information that they will bloom within five or six months (or maybe less) from the time of sowing. The contents of the packet are at once treated as above and put in a gentle heat of, say, 50° to 55°. Germination takes place in three weeks or thereabouts, and, when large enough to handle, the seedlings are pricked out into 3-inch pots. The first bloom determines their fate. If it is what I like, that individual is kept; if not, its existence is ended. The favoured ones are grown on, and in late autumn they are cut down to induce breaks, so as to get bushy little plants. They live all the time in a cold or very cool greenhouse, and give very little trouble. They are at their best in their second and third years. Afterwards they are thrown away, and younger batches take the place of their elders.—JOSEPH JACOB.

FORTHCOMING EVENT.

January 25.—Royal Horticultural Society's Meeting and Exhibition. 1 p.m. to 5 p.m. Royal Horticultural Hall, Vincent Square, Westminster.

hairy leaves is well shown in the illustration. From the centre of these, in June, push up the flower-spikes on stalks 1 foot to 1½ feet or even more in length, terminating in an inflorescence 3 inches to 5 inches long. The flowers are pendulous, deep lilac or purple in colour. The first conspicuous colouring is the bright red bracts and calyces, and as the inflorescences elongate, the pendulous purple or deep lilac flowers open from the base upwards. As these are not closely arranged, the bright red colouring is still visible between them, and this, with the upper portion still unexpanded, forms a most effective and striking contrast. *P. littoniana* belongs to the capitata section, its nearest ally being *P. muscarioides*, which is also one of Mr. Forrest's introductions. Seeds form a ready means of increase, these being sown in the autumn in a cold frame or cool greenhouse as soon as ripe. The illustration depicts a colony of plants growing on a rockery with a sheltered northern aspect, protected from the south by a belt of Hollies, but in no way shaded. *P. littoniana* also does well in the bog garden, especially when treated as a biennial.

PERPETUAL - FLOWERING CARNATIONS FOR PRIVATE GARDENS.

THE varieties of Perpetual-flowering Carnations have been increased so rapidly during recent years that it is difficult for a novice to make a satisfactory selection; consequently I append a list which contains

many of the best Perpetual-flowering Carnations for pot culture in the cool greenhouse, and as fully two dozen varieties are brought under review, they should prove sufficient for the average private grower. Doubtless everyone wishes to manage his garden in an economical manner at the present time, and in relation to this I do not know of any plant that will prove more satisfactory than the Perpetual-flowering Carnations. It will bloom during the whole year, and every shoot will produce a flower if allowed to do so.

Among the pink varieties, Enchantress still holds its own, and it is unquestionably one of the best Carnations. Enchantress Supreme possesses blooms of a rather deeper shade of pink; it has the good qualities of its parent and should be grown by all.

Lady Meyer has lovely flesh pink flowers, and they are frequently exceptionally fine in the spring. The beautifully formed, soft pink blooms of May Day never fail to please, and they are freely produced. Mrs. Mackay Edgar, for which Messrs. Stuart Low and Co. were given an award of merit at the Carnation Show on December 8, 1915, is said to be an improvement on the latter variety.

Among salmon pink Carnations, Baroness de Brien probably occupies pride of place; it is a vigorous grower and produces extra large flowers. This is one of the varieties that should only be stopped once, for if given a second stopping it will not flower, in all probability, until the New Year. Empire Day also has pale salmon pink blossoms, and it is vigorous and free flowering.

In Mrs. C. W. Ward we have a particularly free-flowering Carnation, while the growth is always healthy and vigorous and the deep rose cerise blooms are very telling in effect. R. F. Felton, with clear rose pink flowers of extra size, is a general favourite; the only drawback to this variety is that it is rather subject to the rust disease if not carefully grown.

Few Carnations are more lovely than Pink Sensation; its rich rose pink blossoms are above average size, while it possesses very sturdy, erect stems.

Rose Pink Enchantress merits a place in every collection and its vigorous, healthy habit of growth is a distinct recommendation. Salmon Enchantress is especially desirable, for, apart from its rich colour, it has the good characteristics of the group.

Few Carnations have attained such a degree of popularity as Mary Allwood; it is a free, healthy grower, and its attractive cardinal pink flowers are very beautiful in formation. Like other varieties its colour is sometimes a little variable in the winter, but its calyx is always reliable and never splits. Rose Doré also deserves inclusion; I have found it very reliable. It is a vigorous grower, and its salmon red blooms are often sweetly scented. We now come to the scarlet shades, and of these Scarlet Glow is

especially brilliant in colour when at its best, but it is not always satisfactory in mid-winter, as it is apt to come with white streaks in the blooms. For this reason it has been difficult to supplant Britannia, for the vigorous growth of this variety combined with its general floriferousness has made it a universal favourite. Probably the best of the colour now is Champion, as it has rich scarlet flowers of good form and substance.

There are several good crimson Carnations, and of these Triumph is justly popular owing to its free-flowering habit. Carola is certainly a fine bloom and succeeds best when only stopped once, but its tendency to split is rather a drawback. I have had good results from this variety by growing the plants on a second year and affording just a little more root room.

A crimson of undoubted merit is Warrior, which was shown by Mr. Mason at the recent Carnation Show. I do not think it is yet in commerce, but its general formation and bright tone impressed me favourably.

Very few white Carnations are needed, and of these White Wonder and White Enchantress are difficult to surpass. The blooms of the former are very beautifully formed.

There are several good fancy varieties with blooms of various shades of colour. Sunstar is one of the best, and is almost a yellow self with a few pink markings. It is a healthy grower, with well-formed blooms of medium size. Benora is very attractive; the flowers have a white ground and are freely marked with deep pink stripes, while the formation of the blooms leaves little to be desired.

Of the heliotrope shades Mikado is still hard to beat. Its free-flowering habit, healthy growth and unique colour render it a favourite with many Carnation lovers.

J. GARDNER.



CARNATION TRIUMPH. A POPULAR AND FREE-FLOWERING CRIMSON VARIETY.

PLUMBAGO LARPENTÆ.

(SYN., CERATOSTIGMA PLUMBAGINOIDES)

As a late-flowering plant for the rock garden *P. Larpentæ* is highly prized, and its fine deep blue flowers, which are borne in trusses, are always admired. It is quite hardy, and is not particular in regard to aspect; but a light soil, with a portion of grit or sand incorporated, has a tendency to render it more floriferous than when grown in stiff ground. It is semi-prostrate in habit, and in most rockeries it would be an easy matter to find a suitable spot, where it would thrive and display its full beauty.

The stems are inclined to be woody, and it is deciduous, losing its leaves during the winter months. It attains a height of about 12 inches. Division is the usual mode of propagation. It is stated to have been first found in the walls of Pekin. B.

NOTES ON GREENHOUSE PRIMULAS.

THERE are to be seen at the present time in No. 4 Greenhouse at Kew several flowering plants of the wild original form of *Primula sinensis*. These plants have been raised from seed collected by Mr. E. H. Wilson in China some six or seven years ago. The flowers, pale mauve in colour, are borne in whorls, and occasionally two or three whorls are produced on a stem, as is the case with the cultivated *P. stellata*. Indeed, this wild type resembles *P. stellata* more closely than the garden form known as *P. sinensis*. Moreover, the wilding refuses to cross with the garden form of *P. sinensis*, although the cross has many times been attempted. *P. stellata* has long

Its cultivation is not difficult; at the same time, a certain amount of care is necessary. The great enemy of this and all other greenhouse Primulas in the winter time is damp, and overwatering must be rigorously guarded against. Damp will also seriously affect the seedlings in the spring, and too much care cannot be given at this critical stage. Another common error is that of applying too much heat. It is not generally known that these flowers may be grown successfully in an unheated greenhouse, so long as they are protected from frost. The cooler the treatment, the brighter and better are the flowers.

P. kewensis.—This is perhaps the most popular of all the greenhouse Primulas, and its origin is interesting. Two species—the Abyssinian *P. verticillata* and the Himalayan *P. floribunda*—were flowering side by side in a greenhouse at Kew. The plants passed out of flower, and after they were removed a few seedlings sprang up

in winter and spring. In recent years it has been sent to Covent Garden Market in quantity, and this may be regarded as evidence of its immense popularity. *P. Forbesii* is somewhat similar, and the two blend well together as cut flowers when lightly arranged in suitable vases. Several plants of either species, if grown in deep, round pans, make a delightful show in winter with their flowers borne tier upon tier in a light and graceful manner. Seeds should be sown in August and germinated in gentle heat. Placed in a cold frame the young plants grow rapidly, sending up their flower-spikes throughout December and the two succeeding months.

P. obconica.—The stems and leaves of this species are covered with fine hairs that are sometimes responsible for an acute irritation or a form of eczema on the backs of the hands and up the arms of those who touch it. Luckily, it does not produce this effect upon everyone, for there are



PRIMULA SINENSIS RAISED FROM SEED COLLECTED IN CHINA.

been regarded as a variety of *P. sinensis*, but it may yet prove to be of an entirely different origin, and there is great interest in tracing the origin of a garden plant to the wilding from which it came. Happily, there are many seedlings of the wild type at Kew, and it is proposed to grow them for several years to note any variations that may arise and to select the most interesting of them. At the present time the seedlings are flowering with remarkable freedom, but they show only slight variation either in colour or form of flower. Curiously enough, *P. sinensis* has twice been figured in the *Botanical Magazine*, but the illustrations are by no means identical with one another nor with the plant introduced by Mr. E. H. Wilson.

Primula stellata is an ideal flower for the amateur's greenhouse, yielding lovely colour tones and varied hues from autumn till late spring, a time when flowers are so much appreciated.

among the ashes on the greenhouse staging. The seedlings favoured *P. floribunda* in leafage, but traces of the form and mealy character of *P. verticillata* were apparent. Fortunately, these chance seedlings were saved and potted up, and they proved to be the first plants of the beautiful lemon yellow, sweetly scented *P. kewensis*. For the first few years of its existence this accidental hybrid failed to produce seed, and it had to be propagated by division, which led to deterioration, and the mule plants looked like dying out when one of their number rose to the occasion and produced fertile seed. The resultant seedlings were also fertile, and seed may now be obtained in almost any quantity. Apart from the ordinary type of *P. kewensis*, there is a form with very mealy foliage like that of *P. verticillata*.

P. malacoides.—This dainty little Primula is cherished for its delicate lilac pink flowers

many, like the writer, who may handle this plant with impunity. Were it not for this singular and unpleasant character, *P. obconica* would be far more extensively cultivated, for it is exceedingly beautiful and easily grown. Its history is traced from the finding of the wild plant in China by Maries in 1879. The flowers of the wilding were pale lilac with a yellow eye. Under cultivation white, carmine and blue varieties have been raised, also double and fimbriated forms. When first introduced, nurserymen were awake to the great possibilities of this species for hybridisation. Many attempts were made to cross it with *P. sinensis*, but all failed. It has many times been pollinated with other species, but it is extremely doubtful if any crosses have been successful. It is frequently stated that *P. obconica gigantea* (syn. *P. Arendsii*) is the result of a cross between *P. obconica* and *P. megaseæfolia*, but the evidence adduced in support of this theory is not

sufficiently confirmed by facts to justify its acceptance.

Primula Seedlings.—Although greenhouse Primulas resent forcing, it is advisable, with a few exceptions, to sow the seeds in a fairly brisk heat. Seeds of the stellata and sinensis varieties are best sown in late March in well-drained pans containing sweet leaf-mould and sand. Germination is very uneven with all Primulas. Some of the seeds produce seedlings in two weeks, while others in the same pans may take two months to germinate. In the case of the large *P. imperialis*, which is now very little grown, the seed has been known to germinate after remaining dormant for a whole year; while the new *P. Purdomii* has germinated freely in a cold frame, but failed to produce a single seedling when sown in heat.

The compost in which the seeds are sown should be passed through a fine sieve or riddle, placing

SNOWDROPS AND ACONITES IN A WOOD.

AGARDEN should, if possible, merge into a wood, where formality ceases and flowers are allowed to grow as Nature intended. The trim, machine-mown lawns, probably bounded by a gravel walk, are succeeded by rougher grass, scythe-mown only two or three times a year, with trees scattered here and there, outposts of the denser thicket beyond. Here, in sunshine or in shade, Snowdrops and Aconites will thrive, looking best not planted in formal and regular clumps, but scattered and in small groups, left undisturbed to develop new bulbs and to sow seeds at their own sweet will in ever beautiful disorder. Close under trees, sheltered

be gathered in large quantities, provided that there has been bright weather during the time of flowering. Sowing should be done in March, the seed being merely scattered broadcast in suitable places. The tubers of Aconites endure well the most unceremonious treatment, and will thrive even if transplanted in full flower. Quite a small wood may be made to appear double its size by little winding paths turning cunningly back upon themselves and describing a circle or two, bewildering all who are not well acquainted with their intricacies. Here the autumn leaves should never be raked up, or only from the centre of the paths, for their rich russet brown colour makes a lovely background for groups of Snowdrops and Aconites along the sides of the walks and in recesses among the shrubs. Ivy also, with its dark green and bronze leaves, makes a suitable carpet, creeping along and densely covering the ground; but care should be taken to prevent it climbing up the tree stems, which it will certainly do if not severely checked. The rich green of Box bushes looks well as a setting, and Mahonia (*Berberis vulgaris*), with its glossy leaves tinted red, purple and brown, as well as numerous other evergreen shrubs, may be planted in the wood to shelter and protect winter flowers from cold winds. Very soon after the first Snowdrops appear, many pretty winter leaves spring up, such as Wild Parsley, Cuckoo-pint (*Arum maculatum*), Wild Hyacinth, &c., all adding their share of beauty and brightness to the scene. With shafts of sunlight striking down between the trees and shrubs, and falling upon expanses of Snowdrops and Aconites, thrushes singing all around and the presage of spring in the air, even an English winter has very real enjoyment. W.



"WHERE SNOWDROPS THRIVE."

the coarser parts at the bottom of the pan. The surface should be level and firm, barely covering the seeds with fine soil sifted over the seed-pans after sowing. A sheet of glass should be placed over the pan until germination takes place; and as the seeds germinate more readily in the dark than in the light, it is well to cover the pans with sheets of brown paper. As soon as the first seedlings are through the soil, light and air may be gradually admitted; but in view of the uncertain way in which germination takes place, it is advisable to keep the seed-pans for some weeks after the first seedlings are pricked off.

With seedlings there are two very important points to bear in mind. One is to avoid over-watering, and the other to keep the young plants as near to the glass as possible; otherwise the leaves and stems become drawn and weakened.

C. Q.

in nooks of great roots, advancing here, receding there, opening early in sunny aspects and more backward in the shade, the seedlings will appear singly, dotted about the ground, and the older bulbs in larger groups and clusters. Grown in grass, Snowdrops are not splashed and spoiled by heavy rain as they would be in a garden border, and nothing could set off their whiteness better than the varied colours of grass and golden green moss.

Aconites also in careless array brighten and clothe the slopes, their brilliant yellow flowers and glossy green foliage giving an effect of sunshine on the most cheerless winter day. The date of flowering of both plants is uncertain, and they will appear at any time between the middle of December and the end of January, not always influenced by weather, as might be supposed, beyond being retarded by severe and long-continued frost. Aconite seed is ripe in May, and may often

Heath, free flowering as a rule, of exquisite beauty, and of inestimable worth for those who delight in having flowers outdoors all the year. *E. carnea* itself makes a neat bush of small foliage, rather prostrate in its habit, and covered in earliest spring or late winter with delightful, wax-like, flesh-coloured blooms. The plants vary, and a deep-coloured one called *E. carnea splendens* is a gem. The white variety, *E. c. alba*, has the flowers more scattered along the branches. It is very lovely, and comes even earlier than the type. The writer had it in bloom at Christmas, as indeed may be the case with the flesh-coloured one in some seasons. It is pleasant to have a bit of "lucky white Heather" to send to a friend at that season.

A charming set of new varieties of *E. carnea* has been sent out within the last few years. Some of them may be a little "too much alike," but they are all very dainty, and differ in habit and

ERICA CARNEA AND ITS VARIETIES.

THICKLY set with buds for early bloom are the varieties of *Erica carnea*, which are now full of rich promise for an abundant display of their dainty flowers in the dull days. This is a precious

also in time of flowering, even where the colouring is not specially distinct. The writer cultivates them all in ordinary light loam, and can thus testify to their hardiness, their beauty and their value. The descriptions must necessarily be brief on account of space. King George V. is, as should be the case, one of the very best. It is madder carmine with dark brown tips. Queen Mary, as a flower bearing the name of our Queen ought to be, is another most valuable Heath. It is pale carmine with a base of light pink and tips of sienna. Prince of Wales is of a distinct colour from the preceding, and is of soft grey pink with brown tips. It looks a little wanting in colour, perhaps, but is much appreciated. Queen of Spain is another light-coloured one, of madder pink with madder brown tips. Thomas Kingscote is Italian pink with brown tips. Mrs. Samuel Doncaster may be considered well-described as of a medium shade of rose carmine with burnt sienna tips. Winter Beauty, which blooms early, is a gem; the flowers are light pink with burnt sienna tips, and very early. C. J. Backhouse is a pretty blush white touched with grey. The variety *præcox rubra* is a very early,

rich rose carmine variety and highly appreciated. Pink Pearl is of a pleasing blush pink. James Backhouse has the blooms of a delicate madder pink, faintly suffused with a kind of fawn shade and with tips of madder brown. Finally, we have the elegant-habited *gracilis*, which has Italian pink flowers with dark brown tips.

It is almost superfluous to say that a bed of these Heaths in winter is of engaging beauty, while in clumps in the rock garden they command universal praise.

Dumfries.

S. ARNOTT.

CORDON FRUIT TREES.

IT is well known that first-class results are obtained from cordons, and in districts that are not altogether congenial to fruit culture, better results are obtained from this class of tree than from bush and pyramid specimens, provided they are given the shelter of a wall. Cordon trees have everything in their favour. They not only produce the

finest fruits, but take up little room, are kept easily under control, and cast very little shade upon the garden.

Cordons in the Open.—Good results can be obtained, however, by planting cordons in an open position in the garden or by the sides of walks, where they may be secured to wires for support. As they are planted much closer together than other kinds of trees, a greater selection of varieties can be cultivated on a given space, which would prove an advantage to the small grower and exhibitor. During a visit paid to the gardens at Eastnor Castle, Ledbury, in September last I was much impressed by the finely finished Apples and Pears growing on cordon trees in different aspects. Mr. G. Mullins, who has achieved considerable success as a fruit-grower for many years, has planted cordons largely at Eastnor, and is a firm believer in their merits. Peaches and Nectarines are even treated in this way, and they bear fine crops of fruit annually. Most of the best dessert Pears may be grown as cordons, choosing varieties to form a succession. The plants should be 18 inches apart, and trained in an oblique manner against the wall. After the



A SUSSEX HEATH GARDEN FROM A PHOTOGRAPH TAKEN IN JANUARY.

top of the wall is reached, it is often a good plant to take up a second growth from the base, thus making them double cordons. Under such conditions growth is less restricted, and the trees are not so liable to make rank wood. When this is done, however, it is necessary to allow more space between the specimens. Apples should also be trained obliquely, and in addition to growing dessert varieties, such as Cox's Orange Pippin, The Houblon, Wealthy, Coronation, Charles Ross, James Grieve and Rival, some of the more attractive culinary varieties merit inclusion, especially if required for exhibition. Among these, Peasgood's Nonsuch, Emperor Alexander, Gascoyne's Seedling, Bismarck, Newton

means of root-pruning in the autumn. Good Peaches for this treatment include Duke of York, Peregrine, Dymond, Bellegarde, Barrington, Crimson Galande and Sea Eagle. Of Nectarines, Early Rivers, Lord Napier, Humboldt, Pit-maston Orange and Spencer are among the best.

In addition to the kinds mentioned, Plums can be grown as cordons with success. Gooseberries succeed admirably in this way, and the best dessert varieties should be grown either against a wall or on a trellis in the open. Red and White Currants also lend themselves to this method of culture, and if grown on a wall with a north aspect will furnish a succession to bushes growing in the open garden. J. GARDNER.

Gloucestershire.

PRUNING FRUIT TREES.

APPLES, PEARS AND PLUMS.

MANY owners of fruit gardens are this season compelled to prune their own fruit trees owing to the scarcity of labour on the land, and for this reason it is felt that a few simple directions on the pruning of fruit trees will prove useful to those who are unaccustomed to this work. This article deals solely with the winter pruning of Apples, Pears and Plums; the pruning of bush fruits, such as Black Currants, Red Currants, Gooseberries and Raspberries, will be dealt with in a future article. The chief objects of pruning are (1) to let light and air into the trees and bushes; (2) to induce the formation of well-shaped trees and to furnish them with fruitful wood.

The remark is often heard that an amateur cannot prune his own trees,

and there is a great deal of truth in it, for, generally speaking, he is much too tender-hearted to cut his trees to anything like a sufficient extent. Neglect in this direction invariably leads to a thicket of growth and very poor fruit; and when once a tree has reached this stage it may take years to bring it back to a fruitful condition. With standard, and bush trees it is imperative that the centres of the trees should be kept open. It so often happens that a tree may be vastly improved by the removal of a large branch in the centre.

It would be impossible to emphasise too strongly the importance of using a really sharp, strong pruning-knife. Apart from the inconvenience of a poor knife, it should always be remembered

that a clean cut will heal much quicker than a jagged one, and this is a matter of vital importance, since the worst disease to which fruit trees are heir, viz., canker, can only enter the tree by way of a wound when the inner tissue of the tree is left exposed to the air. For this reason it is advisable after removing large branches to cover the newly cut surfaces with tar or white paint. While the knife is unquestionably the best instrument for pruning, a good pair of secateurs has its advantages, particularly in the hands of the inexperienced knifeman, for with secateurs, so long as the wood is not unduly pinched, the work will proceed more easily, at a greater pace, and with less likelihood of causing injury either to the tree or to the operator. There are a few hard and fast rules in pruning that should always be borne in mind. For instance, one should always prune to a bud pointing outwards, since the growth made by the branch will be in the direction of the leading bud. Again, one branch should never be allowed to cross another.

Pruning Young Trees.—For the first few years of its life the young tree receives very severe pruning at the hands of the nurseryman. This treatment is essential for the foundation of a sturdy, fruitful tree, and it is afterwards left to the fruit-grower to continue the good work of the nurseryman. In the early stages the pruning is done primarily with the object of forming a bush or tree of the desired shape, the knife is used freely, many branches being shortened to one half their length, otherwise straggling, unshapely trees will result. Those trees that were planted last autumn require severer pruning than established trees.

Apples and Pears.—Let us now pass on to the pruning of established trees, with which the fruit-grower is mostly concerned. It must be borne in mind that both the Apple and Pear in most cases bear their fruit on short spurs or side growths of stunted appearance. One object in pruning is to convert the ordinary side branches into fruit-spurs, and this is accomplished by cutting back the side shoots to within two or three buds of the main branch. This is well and clearly seen in the case of cordon trees, which should be furnished throughout their entire length with fruiting spurs, and the object in pruning a bush, pyramid or trained tree is to make every branch resemble a cordon. In the case of the Apples Irish Peach, Mr. Gladstone and Worcester Pearmain, however, the fruits are to a great extent produced on the tips of the young shoots, and for this reason the young growths should be left unpruned, with the proviso that they are not overcrowded. These three varieties are exceptions, for practically all other Apples fruit on spurs. There is an axiom in fruit-growing which runs "once a spur always a spur," and it is generally understood that fruit-spurs should never be pruned. But it sometimes happens—more especially with trained Pear trees—that even the fruit-spurs are overcrowded, and in such unusual instances they should, of course, be thinned. Pruning should be completed within the next few weeks.

Pruning Plums.—Unlike Apples and Pears, Plum trees resent severe pruning, and they are often best left alone. Except in very young trees, which require hard pruning, a simple thinning of overcrowded wood is all that is necessary; and there is a wide difference of opinion as to whether pruning is best done in the summer or winter. Where trees are subject to the disease known as gumming, winter pruning should certainly be avoided.

H. C.



CORDON PEARS TRAINED OBLIQUELY ON A WALL. SUCH TREES PRODUCE THE FINEST FRUIT.

Wonder and Blenheim Pippin are among the best. One advantage of treating these as cordons is that the fruits are easily exposed to the sun to obtain the high colour that is so desirable. It is also an easy matter to feed the trees to advantage when carrying heavy crops. Quite low walls are suitable for cordon Apples, and those of only 6 feet or 7 feet in height answer admirably.

Peaches and Nectarines should be trained in a perpendicular manner. Side shoots are encouraged at suitable distances apart and secured to the wall, and from the base of each a young growth is trained in each year to replace the old fruiting wood after it has been cut away. Any tendency to rank growth is easily checked by

EXHIBITION VEGETABLES

V. UTILITY.

A PROPOS the recent correspondence in THE GARDEN, for several years the Council of the Royal Horticultural Society, in compiling their schedule of prizes, have included a special class for vegetables that are deemed suitable for table use, possessing the qualities most valued by cooks for daily use. To emphasise their ideas as to what constitutes the best table vegetables, the Council inserted a special clause in the schedule empowering the judges to disqualify any exhibit which in their opinion does not contain the most suitable vegetables for the purpose stipulated. In 1913 the prizes were withheld on account of the excessive size of the specimens, the judges considering them too large for table use. The inclusion in the schedule of such a class points to one of two things. First, the Council do not consider the usual method of presenting vegetables at shows quite the best suited as individual kinds for daily use as food; or, secondly, they wish to introduce a different type of specimen as a comparison with those so commonly staged at their and other societies' shows. Such a class they probably thought would be educational and be a fair way of testing public opinion as to the appearance and utility of such a class.

For many years a difference of opinion has existed generally as to what really constitutes quality in vegetables. If the awarding of prizes during the past two decades is to be taken as a guide, then I say that size in many kinds of vegetables is the ruling factor.

It cannot be said that the Council of the Royal Horticultural Society had been rewarded with a typical exhibit, of which they were apparently seeking, until the vegetable show held in their hall on September 28 last. I think I shall not merit criticism if I say that the first and second prize exhibits in Class 2, in which nine distinct kinds were asked for, were distinctly typical of what was required as an educational lesson and a comparison with other exhibits in the show in other classes. It is doubtful if similar excellent exhibits have ever been staged that came nearer to the apparent requirements of the schedule. Such educational examples may or may not convince the exhibitor of other types of culture, the public, or the Council itself that the acme of perfection has at last been arrived at. Whether such exhibits will in the future be encouraged, or whether we go back to the larger specimens for public approval, is a problem for compilers of schedules. Who shall decide which is the correct model? I would ask.

To give readers an opportunity of judging what the specimens exhibited in the premier prize exhibit were, I purpose briefly to give some particulars of each kind. Runner Beans, 9 inches long, half an inch wide; Tomatoes, 3 inches in diameter; Cauliflowers, 4 inches to 5 inches; Onions, 3 inches to 4 inches; Potatoes, 3 inches; Carrots, 2 inches to 4 inches; Celery, 3½ inches; Brussels Sprouts, 1 inch; and Peas some 5 inches long.

This exhibit came in for a large share of admiration, and was used for the purpose of comparison with other exhibits of an opposite character, especially the Potatoes, which were in many instances of large size.

OBSERVER.

ROADSIDE GARDENS.

IN such a paper as THE GARDEN, which deals so widely with horticulture, I would express what I might call my views on roadside garden planning. I, like most garden-lovers, value the privacy of my own garden; but when I have occasion to travel about and to pass through town, village or suburb, I still look for the pleasing sight of well-kept gardens, chiefly front gardens, as they are not usually closed to outside view. But how often does one see and enjoy the sight that would influence for good the greater part of the public, that is, an unfenced garden—beauty seen at ease, not by having to look through or over any obstacle. On passing along the public way one has to see on either side conspicuous barriers between public and private property, unornamental, conventional and generally unnecessary things. They

of flowers of suburban gardens within easy reach of the public; indeed, fine bunches can often be picked without stepping from the public pathway. Further into the country beautiful gardens are sometimes seen practically unguarded; and there are more remote pretty villages where to fence a garden would be considered a waste of time and material. Who, on passing along a walk or drive of a gay public park, would care to see any of the typical front garden walls and railings on either side of the way; or who would think of erecting them around a lawn to hide the flower borders? I claim, therefore, that they are as inappropriate around front gardens as they are within a public park or in a strictly private garden. [The Rose walks and herbaceous borders along the highways of Purley, Surrey, have proved a marked success, and might well be followed in other places.—ED.]

In Colonial cities I have seen flower borders unfenced (except for a few low hoops or rocks)



A ROADSIDE GARDEN AT PURLEY.

mar the beauty that lies behind them, and help to make the roads (often termed "Gardens") simply thoroughfares lacking beauty. I ask the reader to compare these customary methods in town planning with an imaginary vista of open gardens, or even unfenced sward. Why not as an all-sufficient dividing line have a green verge or a low hedge, which could be of Roses? Or where the garden owner would prefer to beautify still more, a flower border would be a finer feature, if only of Nasturtiums, for they without a fence towering up in front would help to make the way gay.

Such suggestions will rouse the critics, and rightly so. Some there are who could not tolerate the thought of passing folk having access to their cherished borders. Daring children, certain adults and the neighbours' dogs might form imaginary obstacles sufficient to prevent an application of the idea; but when flowers, however gay, are abundant, they often fail to tempt. I daresay most readers, like myself, have noticed the choicest

adjoining the pavement in busy thoroughfares, and have seen city park boundary walls and fences minimised or entirely removed, successfully in every respect.

I do not think a fair trial could possibly fail in most neighbourhoods, and once success has resulted from the first ventures, the plan should be almost universally adopted. Where the houses have but a few square yards of ground in front, I recognise that the scheme must be out of the question, especially as such houses are generally well within the big towns.

The whole scheme may have many flaws, but they will soon be exposed. The suggestions are made with the desire to beautify, but the successful working of the scheme ought to boom the horticultural trade; besides, it will be a step towards Nature, which is saying a great deal for it, and must, as already remarked, have a good influence on people.

A. G. SAUNDERS.

FORMAL OR INFORMAL GARDENS AND PARKS.

MANY years have now gone by since we first saw, in childhood, an informal and charming English garden. It was not in England, but in the West of France, some miles from the little town of Savigné-l'Évêque, and it lay in front of a château that was then occupied by a worthy old gentleman, much esteemed by the surrounding folk, a certain General Fitzgerald, who retired after passing more than forty years in the service of Great Britain. It is a very keen pleasure for a Frenchman who has made England his home to recall such a memory.

Since that time we have seen the park of Versailles; the Italian park of the Escorial, near Madrid; and a goodly number of other formal parks and gardens, too French or too Italian, reproduced in England, and copied in all their rigid lines and arrangement. Fortunately, there is not wanting a vigorous criticism directed against this formal and inferior style, and readers may find articles published in *THE GARDEN*, articles as charming as they are unassuming, acute and profound essays in the sound philosophy of the garden. We may, then, be excused if we mention an excellent lecture which was given to members of the Royal Horticultural Society and published a few months ago in *THE GARDEN*. The author, Mr. James Hudson, V.M.H., protests against the geometrical style, as incapable of producing a really artistic effect, and with as much justice as courage says: "Get rid once and for ever of all idea of formality and then try to imitate Nature, or rather work in accord with Nature." But how many people there are who never dream of such a course. They see Nature and they enjoy Nature, but they consider her always in herself, independently of the connection which should exist between her and the garden, and they never think of asking from her those lessons which would help them to produce work of real taste and refinement near their own homes and on their own property. As a necessary consequence, certain owners and gardeners have none but the commonplace idea of a demesne, whether great or small, and have no other conception except one of straight lines of trees and shrubs and flowers. They may also make them follow winding walks in awkward curves, with an exaggerated pretence of the picturesque—or, again, multiply little beds and little borders on tiny lawns, filling them with those eternal scarlet Geraniums, yellow Calceolarias and blue Lobelias "in a weary repetition that ends by becoming detestable."

It is possible, too, to adopt a large and simple plan, to plant trees and shrubs in a harmonious way, to group fine perennials, to keep a place for a certain number of bright annuals, and to obtain an almost continuous flowering for the

delight of the eye and the joy of the heart, and yet to spoil all if there be lack of intelligence, of understanding, of accurate knowledge of the subject.

We have seen in some public gardens in Scarborough and Whitby long and large borders which could have been made to produce an admirable effect, but, instead of that, have been cut up into infinite squares, all equal in size and all planted with rows of annuals or perennials, with as much art as one would apply to the planting of Leeks or Cabbages. We have seen the same system of rectangular planting prevailing in certain rockeries. We only pray that the practice be not contagious in England, or there will be an end of the artistic garden and of the happiness of those who are in close sympathy with Nature.

THE GARDEN has done a real service in publishing articles in which the tedious formal style is

and producing none of "that sense of expectancy, of that charm of mystery, that is the best quality with which a pleasure ground can be indued," since such borders "show everything all at once, leaving nothing more to expect, nothing more to hope for." So wrote Miss Gertrude Jekyll in *THE GARDEN* a few months ago.

And yet if there is one region in which good herbaceous plants have ousted the commonplace usurpers, it is in wide and even in narrow borders. We have certified this fact in a goodly number of such borders set before or around many splendid residences, pretty villas, or even humble dwelling-houses. In the garden which surrounds our little church no plant at all costly or rare is displayed; but we have planted or sown lovingly well-grown Laburnums, simple annual Poppies and Virginian Stocks, Foxgloves, Thlaspi, Montbretias, Chrysanthemum maximum, Madonna Lilies, &c. A few well-grouped Oats join these each year, not as a treat for a pony, which we do not possess, but for the pleasure of passers-by, who have remarked more than once how much these Oats added to the elegance of our free borders. But, however this may be, one thing is certain: that formal regularity and geometrical design have found no place in our Filey garden. We, too, in our own measure, have tried to work in accord with Nature, daughter of God—with Nature that manifests her Creator.

E. ROULIN.



RHODODENDRONS GROUPED WITH EASE AND NATURALNESS IN A HAMPSHIRE PARK.

censured as it deserves, and in publishing excellent descriptions of gardens which are living examples, and if carefully studied would be a powerful help towards an appreciation of the garden or the park that would be at once simple and grand. The view in a little park in Hampshire which is now shown pleads the same cause, and forms in truth an exquisite picture of ease and naturalness. Rhododendrons, which elsewhere we have seen placed in accurate lines and at the same distance from one another, are in this park grouped with skill and ingenuity. The reader will observe the great Fir with branches bending down to the ground, a Fir which has abandoned classical form and regularity, and none the less produces an effect as picturesque as it is pleasant.

As to borders, several plants are still used too much in straight lines, by house and by pathway, resulting in the usual stiff and monotonous effect,

the ground in positions where ordinary shrubs do not thrive on account of the shallowness and poorness of the soil. Such is sometimes found on raised banks. The plants, being in pots, can be treated at the will of the owner as regards soil and removal from one position to another. It is essential to success that each plant be supported by a strong but neat stake. Some of the variegated varieties look charming on sunny walls, especially very low ones, as the branches can be trained to right and left.

Green-Leaved Varieties.—Conglomerata, erect-growing; dentata, digitata and palmata, slow-growing; rægneriana and lobata major, strong-growing.

Variegated.—Hedera aurea spectabilis, golden; Cavendishii, golden; marginata, maculata latifolia, Mrs. Pollock, marmorata elegans minor and Silver Striped.

G. G.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

Pruning.—The pruning of wall trees should now be completed without delay, every fine day being devoted to such work. When dealing with Peaches and Nectarines, the whole of the trees should be detached from the wall, and all the old shreds and tying material burnt.

Apricots.—In many gardens these are not successful, and whenever they are to be planted a well-drained site must be chosen, while some mortar rubble from old buildings should be added. The free use of the knife should be avoided, and no doubt pinching in due season would be more beneficial to the trees. Overcrowding must be prevented and badly ripened wood cut out.

Plants Under Glass.

The Flower House.—Now that the Chrysanthemums are over, every endeavour should be made to keep this structure as bright as possible. Primulas, a few early Azaleas, Roman Hyacinths, Schizanthus, &c., will be in bloom; while many shrubs can be gently forced to maintain a supply. Some of the Tulips may be placed in heat, and Narcissi, such as Golden Spur, will soon be in flower. Narcissi, as a rule, will not respond to forcing; but when the buds can be seen, a little extra warmth will be of considerable benefit. Cinerarias which have been kept in a cold pit or frame may now be given cool greenhouse treatment. Clarkias must be kept cool, and as the necessity arises they may be transferred to their flowering pots. These are beautiful annuals for blooming in the spring, especially Firefly and Salmon Scarlet.

Roses in Pots.—These should be arranged in a house where the night temperature is from 40° to 45°, and be given a spraying overhead when the weather is bright. As growth advances, the temperature may be raised gradually. Avoid cold draughts of air, or mildew will appear.

The Kitchen Garden.

Onions.—If early bulbs are required either for the kitchen or exhibition purposes, the seed may now be sown in boxes of loamy soil, selecting a good form of Ailsa Craig. Avoid heat unless exhibition Onions are needed, when more attention will be necessary; but for ordinary use the boxes may be placed in a cool Peach-house and brought on gradually.

Lettuce.—This desirable crop should be watched closely. Those planted in the open must be lightly hoed when the soil is in a suitable condition, while any in frames should be freely ventilated and all decaying leaves removed immediately. A further sowing of Commodore Nutt may be made in boxes. Mustard and Cress should be sown at intervals, according to the demand.

The Flower Garden.

Hollyhocks.—These may be successfully grown if treated as annuals, a procedure recommended where the disease is prevalent, as vigorous seedlings are less susceptible to attack than plants propagated by division or cuttings. Seeds should be sown in gentle heat, and directly the seedlings are large enough they should be given a separate existence by placing each in a small pot. Grown on and hardened off gradually, they will make nice plants for putting out later on; but an open site should be chosen and where the soil is in good heart.

Stocks of the East Lothian type should be sown at this period in gentle heat. If moved on as required, excellent plants will be secured for planting out in April, which will furnish a fine display of bloom in August and September.

Fruit Under Glass.

The Vinery.—Such work as cleaning and pruning dormant Vines should be proceeded with, providing the leaves have fallen. Where the rods are infested with mealy bug, measures must be taken to get rid of this pest. They should be washed with a strong solution of Gishurst Compound after removing all the loose bark, but care must be taken not to injure the inner bark and dormant eyes. The house must be thoroughly cleansed

and the walls washed with lime. When growth begins, a sharp watch must be kept for mealy bug, and every one destroyed. By perseverance this pest will be held in check, if not entirely eradicated.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Early Potatoes.—For early supplies these should be sprouted in boxes before being planted in pits or frames. Care is necessary in giving protection from frost, but at the same time air should be admitted on fine days to avoid coddling; and, as soon as ready, some fresh light soil may be added for earthing up.

Early Carrots and Turnips.—These are usually in great demand, and the best method of obtaining them early and tender is to prepare a hotbed of leaves and stable litter of a suitable size for the frames; a margin of 2 feet all round will be sufficient. After the bed has settled down and a few inches of light soil have been placed on the top, the seeds may be sown.

Asparagus.—Roots of this may be forced on a gentle hotbed, and provide a welcome change in the menu at this season. If a fresh bed is laid down annually, an equal area will be available each year for forcing. The same hotbed will serve for successive forcings, because, as the season advances, less artificial heat is required.

Lettuces and Radishes.—Where salads are appreciated, these may also be raised on hotbeds of manure. Radish seed should be sown broadcast along with that of Carrots, and the Radishes will be ready to draw just at the time when the young Carrots require more room. Choose early Turnip Radishes for earliest use. Lettuces are best sown in boxes and pricked out on a hotbed, where they will develop rapidly.

Garden Refuse.—This is a valuable source of manurial supplies in any season, but more particularly at the present time when our usual supplies of potash manure have been cut off. All garden prunings and refuse should be collected and burned or charred; and when a fire is once well lit, it is surprising how much waste material can be converted into valuable manure. The ashes should be stored, if possible, in a dry place until required, when they will be found beneficial to all crops, more especially to root crops.

Lime.—Applications of lime should be regularly given to the garden. The form in which to apply it may vary according to different local circumstances, but the good results are always apparent. Garden refuse that has become too wet and heavy for converting into potash manure by means of the fire heap should be mixed with lime shells, when a useful compost will result either for use in the kitchen or flower garden or for mixing with potting soils. I am becoming more and more convinced that gas-lime applied to soils where club root is prevalent proves a perfect cure. Apply this on the surface after the ground has been dug, if possible some weeks in advance of cropping.

The Hardy Fruit Garden.

Raspberries.—The shoots of these should be thinned out and tied to their supports. Old plantations having the ground well filled with roots should receive a top-dressing of manure, supplemented later by dressings of liquid manure from the farmyard. This, as is generally well known, contains a larger element of potash than solid manure, and on this account should be utilised to its full extent this season.

Gooseberries and Currants.—Where this stock is free from mildew and mite, it is advisable, for young plantations, to propagate from one's own stock. Stout, even, short-jointed cuttings should be selected from the prunings. These can be laid in a cool shed until a stormy day, when they should be made, tied into bundles with their names attached, and heeled in until it is convenient to plant them.

The Flower Garden.

Alterations.—Any work that has to be done in connection with lawns should be pushed on now whenever the weather is favourable, as any turf disturbed will have ample time to recover before mowing begins.

Shrubs.—Many varieties of hardy shrubs can be moved now, if it is only moving from one part of the grounds to another. It is not advisable, however, to have these plants sent by rail so early in the season.

Lily of the Valley.—A good top-dressing of well-decomposed manure should be given at this season to old-established beds. Moss litter manure from the stables makes an excellent feeding agent: liquid manure is also valuable for increasing the flower supply. The remainder of the crowns required for forcing should now be lifted and placed in boxes or pots in readiness for putting into heat as required. The crowns should always be exposed to the frost until wanted.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

THE SEED-GROWING INDUSTRY AND THE WAR.

RESERVED OCCUPATIONS.

MR. ARTHUR W. SUTTON, The Royal Seed Establishment, Reading, sends us the following communication, dated January 3:

"You will be glad to know that as a result of an interview on December 14 with the Board of Trade Committee dealing with 'reserved occupations,' attended by representatives of Messrs. Carter and Co., Messrs. Garton and Co., and by Mr. Edward Sherwood, Mr. Leonard G. Sutton and myself, the seed-growing industry, so far as certain expert employes are concerned, has now been included in the official list of 'reserved occupations.'"

"At the interview we were able to point out to the Committee that the maintenance of the national food supply would be an impossibility if the production and distribution of vegetable and farm seeds were seriously curtailed, and that our Colonies would be equally affected, as they depend almost, if not entirely, upon England for the supply of seeds of all kinds."

"The Committee gave a very sympathetic hearing to the views expressed by the deputation, but much difficulty was experienced in defining the particular occupations of those expert hands who might be 'starred,' and the Committee eventually suggested that the definitions 'heads of departments' and 'seed experts' might meet the case, and that under the term 'seed experts' it might be possible to include those employes whose technical knowledge in any branch of the seed-growing or seed-distributing departments of the trade were absolutely indispensable."

"No doubt the majority of the members of the seed trade noticed that in the supplementary list of 'reserved occupations' published in the *Times* of Thursday last, December 30, the seed-growing industry was included thus:

"Seed-growing Industry: Heads of Departments and Seed Experts.—In view of the importance of maintaining a supply of agricultural seeds, the Reserved Occupations Committee consider that farmers growing agricultural seeds in bulk for seedsmen should receive special consideration from the Local Tribunals with regard to the trained men required for the purpose."

"On January 1 I received a letter from the Board of Trade dated December 30, a copy of which I enclose, which I think you will be glad to publish, as the third paragraph gives detailed information as to the steps which must be taken when any man whom it is proposed to 'star,' either as a head of department or seed expert, receives notice calling him up for service, provided such man has been attested under Section B, Army Reserve.

"The seed trade has, perhaps, contributed a larger proportion of men to His Majesty's Forces than any other business in the kingdom, and certainly no trade is more desirous to encourage every available man to join the Forces; but the industry, however, cannot possibly be conducted without expert assistance, and the concessions now made by the Board of Trade will be appreciated by the trade throughout the country."

Following is a copy of the letter from the Board of Trade:

"I am directed by the Board of Trade to forward to you a typed list which includes occupations reserved in your industry.

"In addition, however, to the typed list, reference should also be made to the printed lists enclosed herewith, as they probably contain the names of other reserved classes of workpeople in your employment, e.g., mechanics, enginemen, stokers, carters, etc.

"I am to point out that if any man in a reserved occupation receives notice calling him up for service (Army Form W 3, 195), he should at once see his employer, who should forward the notice forthwith to the recruiting officer who has issued it, together with a certificate signed by the employer stating the precise occupation in which the man is actually engaged, and the name, address and business of the firm by which he is employed. On receipt of these particulars the recruiting officer will provisionally cancel the notice calling up the man, and if on investigation it is found that the statements made by the employer are correct, a mark will be placed in the Army Register against the name of the man.

"I am to add that it is open to employers to bring before the Local Tribunal for regulating recruiting, in accordance with Section II. of the enclosed Instructions, the case of any men not included in the lists of reserved occupations, provided that such men have been attested under Section B, Army Reserve. Applications for forms of claim and other communications to Tribunals should be addressed to the Town Clerk or to the Clerk to the District Council, as the case may be.

(Signed) F. H. McLEOD."

INTERNATIONAL DAHLIAS.

It was of great interest to me to compare the results of elections in America and the United Kingdom, each held with the object of discovering the best varieties of Dahlias for garden decoration or as cut flowers. The results of the elections held in England are published in the Year Book of the National Dahlia Society, while those in America were conducted by the *Florists' Exchange*, a trade paper, published in New York.

In America the Dahlia is very largely cultivated both in the greater and lesser gardens, and in some places, notably at Boston, Mass., New Haven, Hartford, Long Island, several places in New Jersey and Maryland, the Dahlia

cult is followed with eagerness by a considerable number of enthusiasts. There are also some notable raisers of seedlings, both as amateurs and in the trade. Of these latter may be mentioned Nathaniel Slocombe, New Haven; C. Alling, also of New Haven; George L. Stillman, Westerly, Rhode Island; and Laurence Peacock, Berlin, New Jersey. This, of course, is but a list of a few chief raisers, and their work is mainly upon the decorative section, or what are being called hybrid Cactus; that is to say, a section of large-flowered full Cactus varieties that border upon the decoratives.

Very few of the finest type of Cactus Dahlias, such as those that Stredwick has introduced, are seen here, although importations, I believe, are made pretty regularly. They seem to lose, however, that delicate fineness of petal and incurved fluted form seen in the best exhibits at home. Some of the Scottish and English gardeners in the north part of Long Island are among the keenest exhibitors, and it is in their hands that one finds these newer up-to-date English Cactus Dahlias. The fancy here leans towards the larger, heavier type of bloom, and especially the decoratives and latterly the Pæony-flowered. The English single Dahlia is scarcely to be found; but one does see frequent exhibits of the giant twentieth century singles, some of them 6 inches, 7 inches or more in diameter. Neither these nor the Collarettes have made much headway, although I fancy that the best forms of the latter, like Maurice Rivoire, Souvenir de Chabanne and similar decorative kinds, will gradually make headway. What is mostly called for, especially by the commercial growers, who depend to a large extent upon the sale of their blooms for a part of their income, is a firm, full type of flower that will travel well to market, stand up boldly in a vase, and last well when sold to customers. For this reason the old-fashioned, broad-petalled type of Cactus, similar to what we knew twenty years ago, will be found in most collections. Examples are Perle de Lyon, white; Master Carl, golden blush; Rhinekonig, white; and also the new large scarlet variety Kalif.

This has been an exceptionally fine season for Dahlias in nearly all parts of the United States, having been cool, as coolness goes here, and showery all through the summer. For that reason there is likely to be an increased demand for Dahlias in the spring, and as English and Scottish growers do a considerable trade in Dahlia tubers during the winter, it will interest them to know the varieties that have succeeded here, and which I find mentioned in the lists of the Year Book of the National Dahlia Society. These include the following:

John Riding, bright crimson; F. W. Fellowes, rich apricot; H. H. Thomas, crimson; Mary Purrier, crimson scarlet; Richard Box, pale yellow; Prima Donna, white; Conquest, dark crimson; Sweetbriar, pink; Rev. Arthur Bridge, yellow, tipped pink; and Rev. T. W. Jamieson, creamy pink.

The show varieties are fewer, and include R. T. Rawlings, yellow; Gracchus, orange buff; Gold Medal, yellow, splashed red; and possibly also Dorothy Peacock, rosy mauve.

Of the Pompons, four occur in both election lists, namely, Bacchus, red; Nerissa, pink; Neatness, salmon buff; and Darkest of All, blackish crimson.

The largest number of "international" favourites are in the decorative group, as witness Princess

Juliana, creamy white; Delice, rose pink; Papa Charmet, deep crimson; Souv. de Gustav Douzon, scarlet; Jeanne Charmet, lilac pink; Yellow Colosse, yellow; Loveliness, bright pink; and Le Grand Manitou, heliotrope, speckled purple. Others that were named, but which failed to win a place in the American list, were Queen Mary, rose pink, and Alice Roosevelt, white and mauve.

In the Pæony-flowered section there was less similarity. Liberty (scarlet) and Geisha (scarlet and gold) were winners; while Bayard (orange scarlet), Dormouse (crimson) and Chatcnay were named.

Looking over the American list, it is seen that a large percentage of the best varieties are of German and Dutch origin; while others, judging by their name, are French. In England we rely more on the home-raised product. American seedlings, however, are taking their place, and will do so more and more.

New York.

J. HARRISON DICK.

ANSWERS TO CORRESPONDENTS.

FLOWER GARDEN.

A COMPANION PLANT FOR CROCUS SIEBERI (C. H. A.).—As fragrance and a dwarf habit are required, no plant could provide them better than Sweet Alyssum (*A. maritimum compactum*). Sturdy young seedlings could be planted out in May as the Crocus leaves are beginning to turn yellow. Great care should be taken to avoid injury to the Crocus corms, and their leaves should not be removed until quite dry. The Crocus seeds could be collected and sown in a pot sunk in the ground, or pushed into the bed among the old plants.

ABOUT SPIRÆA ASTILBOIDES (T. M.).—*Spiræa astilboides* is a native of Japan. It was first introduced into this country by the late Mr. William Bull of Chelsea, through the agency of Mr. Thomas Hogg, Bergen Street, Brooklyn, New York, in the autumn of 1877. Other plants obtained from that source at the same time were the Banded Rush, sent out in 1880 as *Juncus zebrinus*, now known as *Scirpus Tabernæmontanii zebrinus*; and *Polygonum multiflorum*, a rapid-growing climber. The *Spiræa*, which came from Japan as *Astilbe species*, was first shown in flower in 1880 as *Spiræa nivosa*, which name was, on the authority of Mr. Thomas Moore of Chelsea Botanic Gardens, changed to *Spiræa astilboides*. Before its distribution in 1884 it often figured in competitive groups of new plants, both at Kensington and Regent's Park, and attracted a deal of attention. Soon after its introduction to this country *Spiræa astilboides* had a very narrow escape of being lost. The six plants which comprised the entire stock were plunged out of doors in the nursery for the winter. The spot selected was close to the establishment of Messrs. Weeks, the horticultural builders, in which an extensive fire broke out in the Christmas of 1877. One of the houses in the nursery was burned, and the *Spiræas* buried under a mass of debris. They were severely injured, but all survived, and with care a sufficient stock was obtained to send it out in 1884. There was a good demand for it at half a guinea each. A few years after, a variety originated in an accidental manner in Belgium, presumably the result of a cross between *Spiræa astilboides* and the well-known *Spiræa* or *Astilbe japonica*. This, which showed traces of both parents, was put into commerce as *Spiræa astilboides floribunda*. There are now several varieties of this class, of which Gladstone and Washington are among the best.

TREES AND SHRUBS.

TO KILL A LIME TREE (Rock Garden).—Your Lime tree can be killed by removing a ring of bark a foot wide right down to the wood, from the bottom of the tree. This should be done at once. It would, however, be advisable to expose some of the main roots and cut them through, to stop the growth of suckers; or, if that cannot be done, take an inch auger and bore a number of holes into the main roots, afterwards filling the holes with salt. That ought to effectually prevent the growth of suckers.

BOOK ON TREES AND SHRUBS (Toxo).—Descriptions of a large number of flowering trees and shrubs are given in "Trees and Shrubs for English Gardens," by E. T. Cook, a work included in the *Country Life* Library Series, published by *Country Life*, Limited, 20, Tavistock Street, Covent Garden, London, W.C., and obtainable from this office. Numerous illustrations are given, but the genera indicated are not fully illustrated. There are many works on trees and shrubs, but we do not know of one with full illustrations of the various members of the *Prunus* family. A large and quite new descriptive work on trees and shrubs is "Trees and Shrubs Hardy in the British Isles," by W. J. Bean.

THE GARDEN.

No. 2305.—Vol. LXXX.

JANUARY 22, 1916.

NOTES OF THE WEEK.

Adonis amurensis.—This is certainly one of the most beautiful, as it is also one of the earliest, flowers of the year. Happily, too, its complete hardiness is an incontrovertible fact, and not less so its amenability to cultivation in these islands. These are points of importance, and should do much to render so good a plant universally popular. Coming with the Snowdrop and appearing naturally in February in the open ground, the cultivator first gets a glimpse of its golden cups as these push through the soil somewhat in advance of the elegant, Fern-like leaves which later endow the plant with its fullest beauty. The plant is suited either to the rock garden or to the border, where, in cool, loamy soils, it soon becomes established.

Abies bracteata.—A very handsome cone-bearing branch of this rarely seen coniferous subject created much interest at the meeting of the Royal Horticultural Society on January 11, when it was awarded a first-class certificate. It was taken from a tree nearly 70 feet high having a spread of branches extending to 36 feet or more, and, by reason of its abundant fruiting, is among the most ornamental of its tribe. The horizontally disposed branches are beset with rigid, linear spine-pointed leaves, glossy green above and glaucous beneath. The cones are 4 inches or so long, with 3 inch long extending spine-like bracts terminated by translucent viscid masses, which, in common with the whole plant, emit a powerful resinous odour. Highly ornamental and attractive, it is a little unfortunate that this native of Southern California is not sufficiently hardy to do justice to itself generally in the British Isles, and should only be planted in favoured localities. The branch exhibited was sent by Lieutenant-Colonel Barclay, Berry Hill, Dorking (gardener, Mr. Graysmark).

Standard Roses.—"I have heard it said, 'I will not have standards—they are out of fashion.' Fashion, with its passing fancies and follies, has nothing to do with good gardening; it is directly opposed to every sentiment and principle that should direct it, and should be entirely disregarded. A true love of flowers and a genuine desire to use them in the best ways are the forces that impel the good gardener and that sustain him through the earlier years of learning what is best to do and how to do it."—GERTRUDE Jekyll, in "Roses for English Gardens."

Slumps in Horticulture.—It is too soon for anyone to attempt to gauge the extent of the present horticultural depression. It must be very considerable, for, like the purchase of old furniture or pictures, the buying of flowers is to a large extent a luxury. Let us hope that as it was after 1831 and 1832, so it will be after 1914, 1915 and 1916. The agitation over the great Reform Bill seems to have created a situation strangely akin to the present. It caused

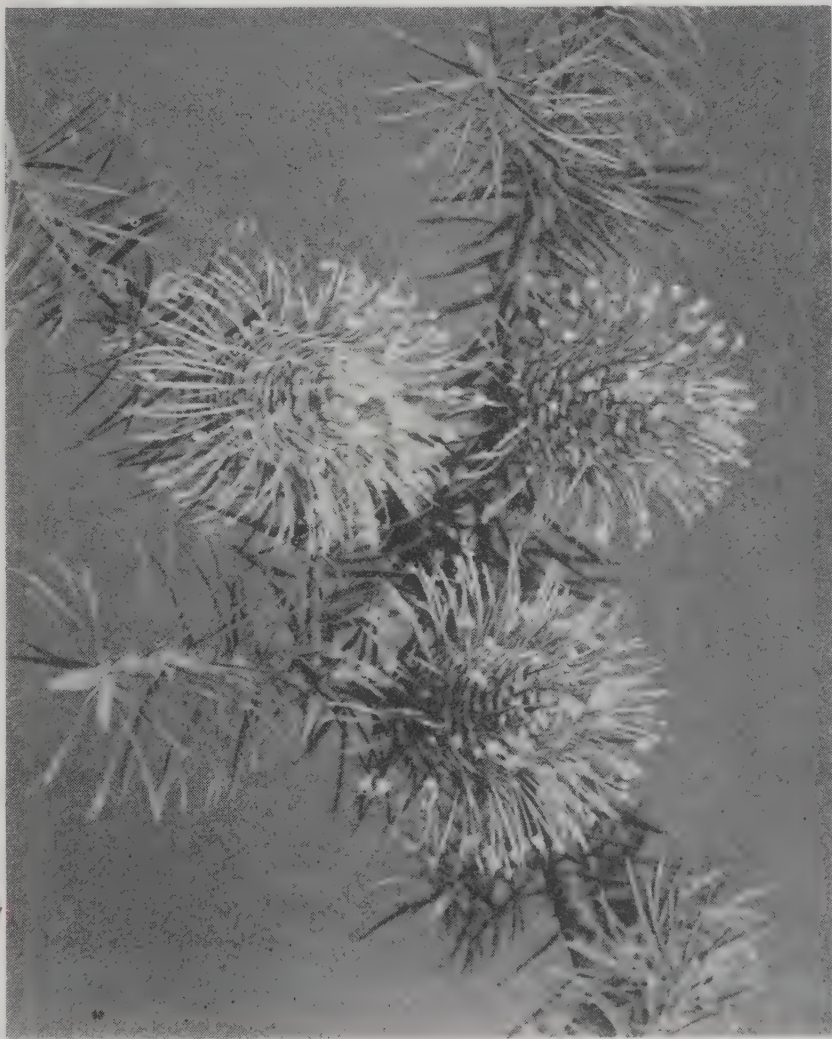
the dealers, as all raw fruit and vegetables were strictly forbidden. If the two noted societies of Islington and Chelsea "went under" then, a larger and more important one arose from their ashes, and 1833 saw the start of a new era.

Refugees and Flowers.—We all know that the present war is responsible for the presence of many thousands of Belgians in our midst. The coming of spring reminds us that this is not the first time refugees from Flanders (as a great part

of Belgium used to be called) have found an asylum in England. About 1570 large numbers of Flemish weavers, driven from their own land by religious persecution, came over to England with their collections of Tulips and Auriculas, and settled in the neighbourhood of Norwich and in Lancashire. This migration is supposed to have been the beginning of the future fame of Lancashire, not only as a great manufacturing centre, but also as the home of many generations of keen working-men florists and gardeners, whose activities are still apparent in the real old-world Tulip Show at Middleton, near Manchester, and the quaint Gooseberry shows of that district.

January Flowers.—The mild weather is very favourable for the development of the hardy shrubs which naturally flower at the present time. They make a walk in the outdoor garden very interesting at this season, and it is particularly noteworthy that many of them are deliciously fragrant. The yellow flowers of the Witch Hazels are freely borne, and a little frost does not harm them. *Hamamelis mollis*, *H. arborea*, *H. japonica* and the paler-flowered *H. Zuccariniana* all deserve a place in the shrubbery border. *Daphne Mezereum alba* opens in advance of the species and is powerfully fragrant, as also is the Winter Sweet (*Chimonanthus fragrans*). *Lonicera fragrantissima* and *L. Standishii*, *Rhododendron dauricum* and *R. mucronulatum*, *Erica hybrida*

and the familiar *Jasminum nudiflorum* comprise a dozen most useful shrubs at present in flower. *Rhododendron nobleanum*, which sometimes has blooms open at Christmas, is, at the time of writing, in the London district only showing the colour of the flower-buds. This seems to point to the fact that the heavy rains during the last three months have kept the temperature of the soil lower than during an average winter



ABIES BRACTEATA, A CONE-BEARING SPRAY FROM A TREE NEARLY SEVENTY FEET IN HEIGHT.

people to curtail their ordinary expenses as much as possible. Improvements and alterations were suspended. There was no call for trees for either the pleasure ground or the orchard. Few or no ornamental shrubs, plants or flowers were then required for the garden or greenhouse. Hardly any nurserymen's bills were paid. After the Reform Bill came the cholera, when the strict regimen imposed by the doctors still further hit

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Artificial Aids to Daffodil Fertilisation.—

I am but a learner, despite "Novice's" opinion of my self-confidence, and therefore shall be glad if he will tell me whether he has recorded any actual, proved results from his practice of "anointing the stigma of shy seeders with a preparation to induce and stimulate the growth of the pollen tube." It is well known that pollen will grow readily in a weak sugar solution. I have myself often interested young folk by showing them the development of the tubes on a glass slide under the microscope. But my experiments, some twenty years ago, in helping fertilisation by this method gave entirely negative results.

special merit in the striped Damask Rose, commonly known as York and Lancaster, for making pot-pourri. The true York and Lancaster, which I believe is a gallica, would have more scent. But if a Rose was grown specially for this purpose, it had better be the one known as Kazanlik, the kind grown in Bulgaria for making attar of Roses; or the Rose des Parfumeurs, another old Rose of sweet scent, both of the centifolia class. It should be remembered that when any one of these Roses is specially recommended in an old recipe, a hundred years ago there were little more than three or four classes of bush Roses commonly grown in gardens, and that, excepting the Scotch Briars and the climbing Ayrshires, they would be probably all derived from Damask, gallica and centifolia. In practice we find that all kinds of Roses serve for the making of good pot-pourri. We make it in quantity every two

them out in a partially shaded spot, and although soon after they were subjected, without protection, to two hard frosts, they are now coming into bloom. So far I believe *P. malacoides* has not yet stood the test of a prolonged hard frost, and although it is therefore not known whether it can yet be classed as a hardy *Primula* in the sense that *P. Auricula* is hardy, there is no doubt that it will withstand a great deal more frost than it was thought it would. Probably there are others we coddle unnecessarily. I wonder how *P. kewensis* would fare out of doors in a winter like the present one. Has anyone yet succeeded in growing and blooming *P. Purdomii* in the open? This is, I fear, a beautiful wretch which flatters but to deceive, doing well for quite a long time, and then suddenly succumbing to some mysterious disorder.—B., Weybridge.

A Selection of Chrysanthemums.—In reply to Mr. F. J. Townend, issue January 15, page 26, I wish to say that it was not any slip of the pen that resulted in recommending the plants of the variety Lady Talbot to be stopped early in May; nor in the case of the variety Amy Poulton. For thirty years I have been engaged in growing Chrysanthemums in very large numbers for exhibition, home decoration and market purposes, and always write from personal experience. The first two years after Lady Talbot was introduced I failed to grow it satisfactorily, through stopping the plants too late. Since then I have constantly recommended cultivators—beginners, not experienced growers, who all have their own methods of treating varieties—to stop the variety Lady Talbot as in the present case, and have received abundant direct evidence that the resultant blooms have been all that they could desire. This evidence comes to me from the North of Scotland to the Southern Counties. Admittedly, the finest blooms staged for competition last autumn were grown on plants stopped in May. Stopping always checks a plant, and I have found that Lady Talbot and many other varieties that show natural first breaks at the end of May and early in June bloom about the same time as the same varieties do when stopped two or three weeks earlier. I prefer the natural break, if one could be sure of getting it just when wanted. The variety Amy Poulton, to bear a bloom of high merit from a second crown, must be stopped early in March. I always respect the opinions advanced by other growers and generally give them a trial, but depend chiefly on personal experience. Varieties vary considerably year by year, and all dates given must be approximate. Naturally, a grower in the Northern Counties would stop his plants a few days earlier than one in the Southern Counties. One cultivator will, in some instances, obtain good results from quite different treatment to that of another.—AVON.

Planting Asparagus.—In reply to "E. M.," page 2, my description applied to the methods adopted in France for growing giant Asparagus, and it is difficult to say which method of planting, viz., one, two or three year old plants, give the best results. Many first-class growers do plant two and three year old plants and get splendid results, as also do those who plant one year old plants. One year old plants have the advantage of being more easily planted, and older plants leave the valuable ground free for a year or two for other crops. Many growers keep their plantations in good condition for twenty years or more, and consider it better to cut lightly the fourth year, taking a full crop the fifth year. One knows



PRIMULA PURDOMII, AN EXQUISITE SPECIES THAT IS DIFFICULT TO GROW.

The late Sir Michael Foster, a most competent authority, tried it at the same time, and our conclusion, supported by microscopic examination of the stigma so treated, was that the pollen grains, finding the required sugar on the surface, did not trouble to seek it by penetrating deeper; in short, that such applications were a distinct bar to fertilisation instead of a help. I experimented on all sorts and conditions of flowers, under glass and outside.—G. H. ENGLEHEART.

Roses for Pot-Pourri.—I was told that the best Rose for pot-pourri was the York and Lancaster. I planted one or two trees here in Maida Vale and sent one or two to a friend in the country. Though these have bloomed now for two or three years, none of the blooms has any fragrance whatever. Can the trees be a wrong species? The flowers are single and striped red and white.—MAIDA VALE. [To this enquiry Miss Jekyll kindly replies: "It is doubtful whether there is any

years, using ten to twelve bushels of Roses picked in fullest bloom, the remainder being leaves of Sweet Geranium, Sweet Verbena, Bay, and anything of lasting fragrance that comes to hand, besides the salts used in the gradual preparation and the spices and sweet powders that are added at the final mixing."—ED.]

Primulas of Doubtful Hardiness.—Mr. E. H. Woodall, in his interesting notes from the Riviera in your issue of the 8th inst., mentions that *Primula malacoides* will bear any treatment in winter. Mr. E. A. Bowles, in "My Garden in Autumn and Winter" (perhaps the most delightful of the series of his invaluable books), tells his readers how the same *Primula* began to bloom in September and kept up a succession for ten months, and advises that old plants too lanky for the greenhouse should be planted out in spring. Some two months since, having an overplus of seedlings of *P. malacoides*, I planted several of

quite well, of course, the advantages of spraying overhead in the evening; but most growers have no time for this. The growers around Paris would be wasting their time sowing in pots for general use, as seeds germinate and grow rapidly in the open ground. The reason for taking out a shallow trench is to have a supply of soil to add for a few years as the plants become larger, and not only for ease in planting.—W. L. L.

Browallia viscosa.—This *Browallia*, which Mr. Woodall finds so effective as a blue bedder on the Riviera (page 16), is also a very desirable subject for the same purpose in this country. It is, however, more often employed as a pot plant for the embellishment of the greenhouse. Under these conditions it will flower practically throughout the year, but is most appreciated during the winter months. It forms a freely branched, dwarf, bushy specimen, whose flowers, which are borne in great profusion, are of a deep violet blue, conspicuously marked with white in the centre, the contrast between the two being very noticeable. Apart from the fact that it is hardier than the better-known *B. speciosa*, the tone of colour is more striking, though the flowers are smaller. If cuttings are struck early in the spring, they will form good flowering plants in 5-inch or 6-inch pots by the winter.—H. P.

An Amateur's Vinery.—Many an amateur gardener I have known has grown everything well except Grapes, owing to a lack of confidence and adhering to ancient viticultural beliefs. I enclose a photograph showing, though imperfectly, perhaps, what can be done by an amateur. Grapes equally as good as those shown in the photograph were grown with nothing but sun-heat. After a time, as a Muscat of Alexandria was grafted on a Black Hamburgh Vine, one of Kinnell's Horse-shoe Boilers was installed, and at a cost of from 2d. to 3d. per day a good steady heat is maintained, Grapes being obtained three months earlier than in the cool vinery. I advise anyone intending to start Grape growing to find an expert in the district, if possible; pay him to come in every two or three days or weekly to advise and help for the first year; apply his practical information in conjunction with the best books on Grape growing, and in time you will be able not only to grow Grapes, but to initiate new methods, startling perhaps to the old school, yet satisfactory in their results. Of all the charms of gardening, after you have mastered your subject, nothing will have such a fascination as Grape growing, from the first prenatal stirring of the bud to the swelling and maturing of the finished Grape, perfect in berry, in bunch, and, above all, the subtle charm of a perfect bloom. If a good foundation is laid, the young Vines not being overcropped, in later years no fear may be entertained as to overcropping. As long as a matured cane is properly fed and watered, it is, under good management, almost impossible to overcrop. Even then, should a Vine be overcropped through mismanagement, it can be remedied very simply. In the

following year crop the cane very lightly, and at the same time grow up a young cane from the lowest part of the trellis from the old cane. This should mature sufficiently in one year to take its proper place. The old cane should be cut right back to the new growth about the time the leaves fall. To all who contemplate Grape growing, I would say: Take only the best advice, read extensively, then use your common sense, and with time and experience Grapes of good quality and in quantity will be obtained every year.—HENRY HALL.

A Record of Indoor Carnation Blooms.—My gardener has just handed me in his record of

yearlings, furnish a useful cutting all through the spring and summer months from the two year old plants. The following is the number of presentable flowers; the weaker side blooms and superfluous buds are, of course, removed:

January	..	55	August	..	239
February	..	86	September	..	245
March	..	112	October	..	175
April	..	112	November	..	70
May	..	225	December	..	62
June	..	350			
July	..	281	Total	..	2,012

—REGINALD HUDSON, *Stratford-on-Avon*.

Apple Downton Pippin.—In a recent issue "Anne Amateur" says her favourite little Apple made the best mincemeat, but she did not know its name. I presume it was Downton Pippin. It is small, yellow and speckled, and used to be grown in our nurseries in the fifties, but now crowded out by superior varieties. I once saw several large trees in a Sussex orchard which were planted for the making of cider. If a firm-fleshed Apple is desired, Baumann's Red Reinette would do.—GEORGE BUNYARD, *Maidstone*.

A Few Words from Tasmania.—I am in this distant colony a good deal pleasantly engrossed in the essential and not unexciting art of cookery, my somewhat prentice efforts deriving notable assistance from the dicta of a certain Mrs. Beeton, which have deservedly run into such a host of editions that one would surmise error to be entirely eradicated. The following, therefore, came as somewhat of a shock to me: "Bay Leaves.—The leaves of the common laurel (*Prunus laurocerasus*) are employed for culinary purposes to give a kernel-like flavour to sauces, stocks, custards, puddings, etc. They may be dried and their flavour preserved for a great length of time if kept in an airtight tin." Search in an earlier edition reveals the fact that there the use of both real Bay and Laurel leaves is referred to, and from enquiry of local cooks I learn that the use of Laurel leaves is more common than I had supposed. All the same, I am much surprised that so great an authority as Mrs. Beeton should confuse the common Laurel with the true Bay (*Laurus nobilis*), and in a recent edition



AN EXCELLENT CROP OF EARLY GRAPES GROWN BY AN AMATEUR AT A VERY SMALL COST.

indoor Carnation blooms cut during the past year, and it has occurred to me that this list may be of interest to other growers of Perpetuals, in that it shows so clearly which are the lean months and which the months of plenty. Although some Carnations are always in flower, the four months November to February produce but meagre cuttings for the vases. It is instructive to observe the steady increase in numbers from January to June, and the equally consistent shrinkage from that month to the end of the year. The plants occupy one small house 25 feet by 12 feet in dimensions; and about 25 per cent. of them are Malmaisons, which, in addition to the June and July flush of blossoms from the

give the cold shoulder to what I esteem the genuine and superior article. It is a surprise to me that Arums have long been in bloom here outdoors, Rose shows are being held, Walnuts are swelling, &c., when I can perceive little in the weather of the past two months to tempt such opulence. Also, from their behaviour here, one would suppose certain of the Eucalypti to be the hardiest of hardy trees, as they are impervious alike to considerable cold and to being within an ace of being entirely burnt alive in bush fires. What I have seen of the orchards here is most interesting, but I will refrain from instructing the home public thereon until I am rather better instructed.

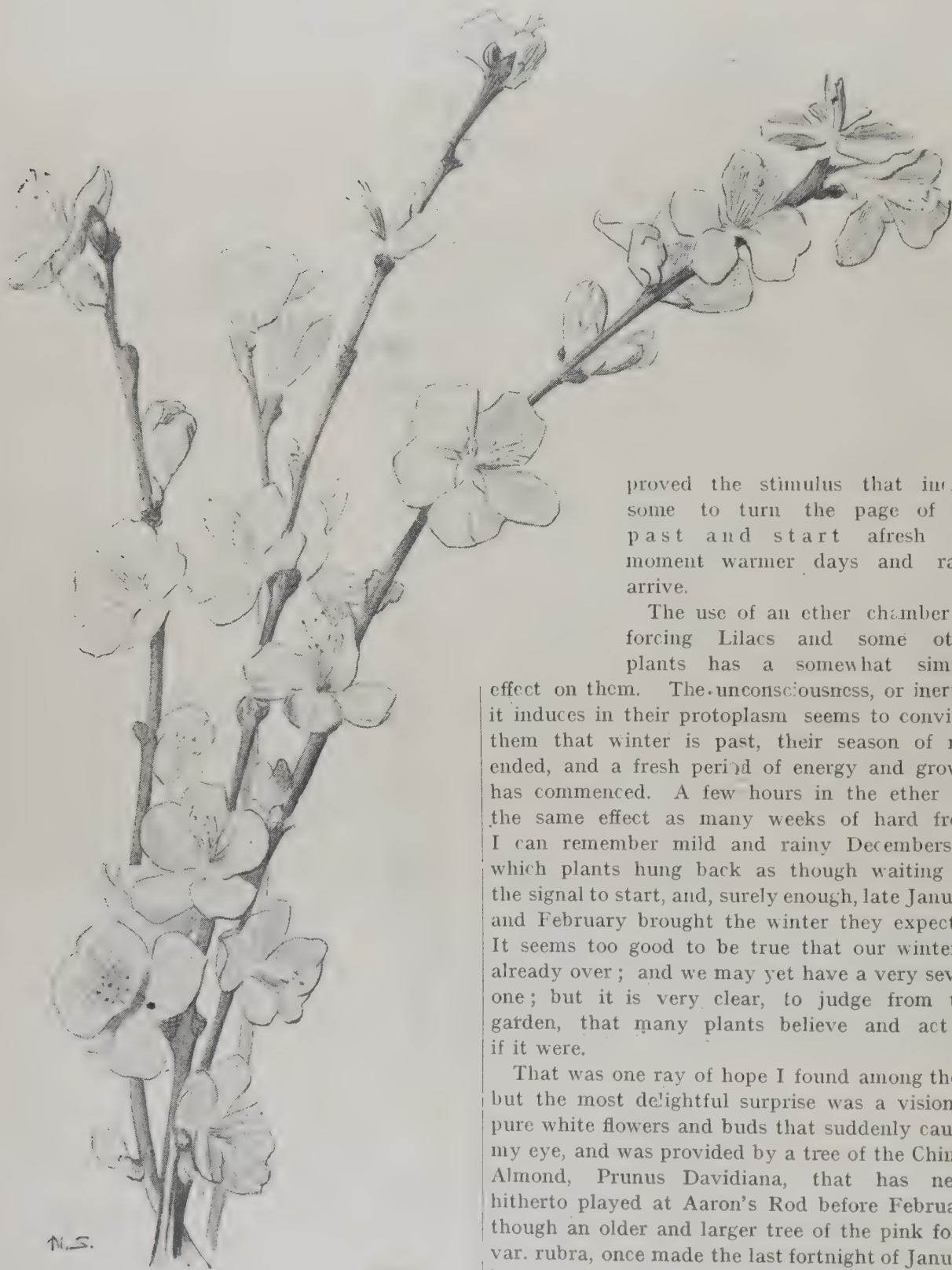
—ARTHUR GARNETT.

NOTES FROM MYDDELTON HOUSE GARDENS.

By E. A. BOWLES, M.A., F.L.S.

THERE always seems to be a change in the garden on New Year's Day. Our better judgment and common sense, and all the duller, more practical sides of the understanding would persuade us it is due to mere sentiment or the fact that we seek, and therefore find, signs of fresh growth. Anyway, it pleases me to under-

afternoon, in pleasant contrast to the wild, blustering, wet morning, I searched the most likely corners of the garden for early blossoms and found so many pleasant surprises that I resolved to make a record of them. The sharp spell of frost in late November no doubt gave many plants not only the necessary check that closes the year's account of growth, but also



EARLY SPRAYS OF THE CHINESE ALMOND, PRUNUS DAVIDIANA.

take a voyage of discovery each first of January, and to find hope and encouragement for the year in any bud, blossom, or newly arisen shoots of bulbous friends that I can discover.

This year yielded more than any before, and during a spell of watery sunshine that came in the

proved the stimulus that incites some to turn the page of the past and start afresh the moment warmer days and rains arrive.

The use of an ether chamber in forcing Lilacs and some other plants has a somewhat similar effect on them. The unconsciousness, or inertia it induces in their protoplasm seems to convince them that winter is past, their season of rest ended, and a fresh period of energy and growth has commenced. A few hours in the ether has the same effect as many weeks of hard frost. I can remember mild and rainy Decembers in which plants hung back as though waiting for the signal to start, and, surely enough, late January and February brought the winter they expected. It seems too good to be true that our winter is already over; and we may yet have a very severe one; but it is very clear, to judge from this garden, that many plants believe and act as if it were.

That was one ray of hope I found among them, but the most delightful surprise was a vision of pure white flowers and buds that suddenly caught my eye, and was provided by a tree of the Chinese Almond, *Prunus Davidiana*, that has never hitherto played at Aaron's Rod before February, though an older and larger tree of the pink form, var. *rubra*, once made the last fortnight of January beautiful for all who passed along the road by the garden wall and had eyes to see. In some seasons these early flowering trees are but a few weeks before the ordinary Almonds, and then, with many other signs of returning life around them, do not seem so wonderful as when their flowering follows so closely on the heels of Christmas. Although introduced from Peking by the Abbé David as long ago as 1865, this useful tree is but little known. Naturally, if there is only room for one Almond tree in a garden, the older and more

showy one should be chosen; but many a garden that has plenty of room for it still lacks David's Almond. The white form is the better, at least as it behaves here; its flowers are larger and more freely produced, and this season it has beaten the pink form by a week. As it stood out this evening in the light from the western sky, with the red and grey trunk of a giant Scots Pine for background to first one bough and then another as I moved, it was indeed a wonderfully charming sight for a winter's day. A few sprays cut for a tall glass are delightful indoors, and the younger buds open into even purer flowers than those that have felt the nip of winter evenings outside.

Hamamelis mollis was the bush I was seeking when the Almond attracted me, and it, too, is early and in full bloom, while *H. japonica* var. *arborea* is only showing a thread or two of gold, and *H. japonica* var. *Zuccariniana* is still colourless. This newer and larger-flowered Witch Hazel, *H. mollis*, ever since it commenced flowering here has done so a week or two in advance of the others, and, as it makes much more show when in flower, it is the best to plant in quantity where a colour effect is preferred to a collection of different forms. The petals of *mollis* do not twist and wrinkle like those of *japonica*, and so there is more of the golden surface to catch the eye, and they appear larger than they really are as compared with those of *japonica*.

Chimonanthus fragrans and its variety *grandiflorus* are full of blossom. The flowers of the older form are certainly the more strongly scented, but the greater size and brighter yellow of those of the varietal form please the eye more. Therefore, as growing out in the garden, *grandiflorus* is the more beautiful, but I grow them both chiefly to please my nose, so, after all, I prefer the older friend in spite of its semi-transparent petals. Another valuable shrub for winter flowering is *Prunus microlepis*, a semi-double Cherry from Japan. We used to call it *P. miqueliana*, but Mr. Bean tells us in his invaluable book that is a very different thing. It began to open a few flowers in November before its leaves had fallen, and had quite a good show of them when the snow came and turned them brown. After the frosts had gone, a fresh crop of bloom appeared, and even now the little tree shows up as a silvery cloud of blossom among its bare neighbours. It is charming for cutting, and some twigs lasted in full beauty for three weeks. The flowers are generally produced in pairs and are slightly pendent, the petals are rather narrow but number about fifteen, so that the starry flowers of an inch in diameter look quite full enough. They are like a miniature form of *Magnolia stellata*, so starry and white and springing from the bare brown twigs. After a few days, especially when cut, the filaments and bases of the petals turn a bright rose colour, and in that stage the flowers are at their prettiest. Afterwards the rose colour appears rather irregularly on the edges and veins of the petals, and they lose their charmingly fresh appearance. I only know this plant as grafted on Cherry stock, and so far have been unable to strike it. A little group of it would be well worth planting wherever a sheltered position in front of dark evergreens could be given up to it.

Hellebores are well out, and two rather rare ones in the rock garden need a little looking for. The first came here as *H. Bocconi torquatus*, but according to the "Kew Index" *Bocconi* is but a synonym, and if you like to follow it round

in the supplements you will soon be giddy, for you will then find it becomes either *Baumgarteni*, Kov., or *viridis*, L. But in Supplement I., *Baumgarteni*, Kov., is considered to be *purpurascens*, Waldst., which the original volume declares to be *odorus*, Waldst. This ought to cure one of the trick of rushing to the "Index" to settle the question, instead of remembering it is but an index, and therefore should be used only to find references to the original descriptions of plants. It is such a temptation, though, to hope that the case is a plain one and the "Kew Index" will state it clearly, and save a day's work in a museum among herbarium specimens and all the books referred to. It is safer to take the "Kew Hand List" as guide, and in this case it is helpful, for it reminds me of the figure of *purpurascens* in the *Botanical Magazine*, but places it as a variety of *viridis*. So I get out Vol. LIX. of the great work, and therein find a beautifully coloured figure of my little plant. It has a great charm for me, but many might call it dowdy. Its flowers are well formed, with round, overlapping sepals, and have not made up their minds whether they will be green or purple, so have a curiously shot effect, being mostly purple outside but nearly green within, and in different lights they vary according to how much the other colour shines through to the side you see. The general effect as growing is of a very neat dove-coloured flower, with just a trace of the iris of the bird's breast.

The other Hellebore goes by the name of *H. lutescens*, but is a colour form of *H. orientalis*, I imagine. It is not so yellow as its name implies, but is the nearest approach to a yellow at present achieved by a greenish white-Hellebore, and has a cheery, sunny look peeping out between a big stone and a little dark green bush of *Berberis dulcis nana*.

Among less remarkable plants are the bright red flowers of *Pulmonaria rubra*, a good thing for a large border where it can spread into a wide mass. Its light green, unspotted leaves make a good foil to its clear, warm red bells, which never turn purple or blue as they age. *Iris histrioides* var. *sophenensis*, although so short in tube that its flowers almost rest on the ground, makes a patch of dull purplish blue here and there. The most effective tuft is in the midst of a large clump of a *Sempervivum*. A single bulb got in there by accident, and has grown into a closely packed family of at least ten.

Crocus laevigatus is still full of fresh blossoms in several nooks of the rock garden and in the *Crocus* beds and frames, though it has flowered since October. But the best now are some of the varieties with lilac ground colour and rich feathering, which always flower later than those with white ground which I collected near Athens. Spring species are well to the fore. *C. chrysanthus* is one of the brightest of all, and this season some of the white and blue forms are as early as the orange ones. *C. ancyrans* is just out, and hard to tell from *chrysanthus* without seeing its

reticulated tunic, but the absence of black spots at the base of its anthers and its less globular shape are safe marks of distinction. A very dark and large form of *C. Sieberi*, sometimes called var. *purpureus* and sent out years ago as *C. atticus*, has beaten the typical and lighter form, and is well out. *C. Imperati* in several variations, *C. reticulatus*, *dalmaticus* and *Korolkowi*, with *Colchicum libanoticum* and *hydrophilum* (spring forms) and belated *C. variegatum* (*Parkinsonii*) and *Decaisnei* of late autumnal ones provide a bit of colour; and *Cyclamen Coum*, *ibericum*, and *Atkinsii* help them. *Galanthus Olgæ*, the beautiful autumnal Greek form, has still a flower or two quite fresh and fair; but *G. cilicicus* and *byzantinus* are the Snowdrops of the moment.

they quickly form large hanging tufts or curtains of foliage that are very ornamental at all times. For this purpose they are best planted in the fissures and cracks while very small, taking care to press the soil firmly round the roots at the time of planting. If looked after for a time and kept moist at the roots, they quickly take hold, sending their roots down in search of the little moisture they require.

D. cæsius, which is here illustrated, is one of the best kinds for either a ledge or wall. It is very variable, and there are several forms grown in gardens, all of which are very attractive. Some varieties have stems 2 inches to 3 inches high bearing large flowers, while others have branching stems and reach a height of 6 inches or more.



THE CHEDDAR PINK (*DIANTHUS CÆSIUS*) ON A ROCKY LEDGE.

Thus the old year and the new, autumn and spring, join hands in providing interest and hope for the gardener on this winter's day.

THE CHEDDAR PINK.
(*DIANTHUS CÆSIUS*.)

THE Cheddar Pink, so called because it is found growing on the Cheddar cliffs in Somerset, is one of a large family that gives us many valuable subjects for the rock garden. Many kinds form large masses of glaucous foliage, covered in spring and early summer with masses of pink or white flowers. For a sunny ledge, or level ground well drained, there are few more attractive plants than *Dianthus plumarius* in its various forms. Used as wall plants, for which many kinds like the above, *D. cæsius*, *D. arenarius* and *D. fragrans* are very suitable,

In the latter the flowers are smaller, but make up for size in the profusion of bloom produced. Plants are readily raised from seed, which may be sown either in a cold frame or in heat. But as Pinks so freely hybridise with each other, a certain amount of variation will be noticed among the seedlings.

W. I.

ERYTHRÆA MASSONII.

THIS charming little Centaury, with its bright rosy flowers, is among the best and brightest of rock plants in midsummer, and it is interesting to have a plant with flowers of this colour so closely allied to *Gentians*. If given a moist place with plenty of sunshine, it will develop flowers, 4 inches high, in such masses as to cover itself. There is no need to say how valuable such a plant proves to be throughout the summer months. It is a native of the Azores, and is sometimes known as *E. diffusa*.

PLANTING CUPRESSUS MACROCARPA.

By PROFESSOR W. SOMERVILLE, F.L.S., F.R.S.E.

IN the issue of THE GARDEN for December 4, 1915, I read an interesting note on *Cupressus macrocarpa*, and as I have had considerable experience with this tree I venture to send the following jottings. I plant out several thousands every season, raising the plants from seed sown about the end of March, and planting them out in their permanent quarters as one year seedlings, when a large proportion of them are about a foot in height. They are planted out any time between October and April, and I cannot say that I notice very much difference in the results. My practice is to plough and harrow the land, and then to insert two or three plants in each hole made by a heavy dibber. The reason that I put two or three into each hole is because they shelter each other, and, besides, in this way allowance is made for a death rate that is always considerable. Two or three years later the weakest plants are cut out. I have planted this species in several parts of the country, and I find that where the land is rich and the situation is sheltered, the trees grow up so fast that they have a difficulty in maintaining an erect position without the aid of stakes.

On the other hand, where the plants are used on bare, exposed and poor chalk on the South Downs, the growth is much slower and the trees are much more resistant to wind; in fact, under these circumstances I do not find that this species has a greater tendency to be swayed or blown over than any other species that I have used. Under the conditions of soil and exposure that the South Downs offer, I find that no other species of tree grows or promises so well as *Cupressus macrocarpa*. My object in planting is not so much to get timber as to secure shelter and improve the amenities of a bare, uninteresting landscape; but even from the point of view of wood production this species is quite hopeful, because, although it usually produces more leaders than one, it is likely to furnish a great quantity of useful fencing material, and this is a class of produce that is very scarce on the Downs. I pay 6s. a pound for the seed and usually secure 3,000 or 4,000 plants from this quantity, so that the trees if planted at a year old do not cost more than ordinary forest trees. As the result of an offer that I made a year ago in the *Quarterly Journal of Forestry*, I have distributed about 40,000 plants this autumn to about twenty different landowners, who have promised to give them a trial under varying conditions. In the South and West of England and in Ireland this tree is more worthy of attention than some people give it credit for.

MORE ABOUT BEAUTIFUL CHILIAN PLANTS.

THE article which appeared in a recent issue under the title "Some Beautiful Chilean Plants" makes one think, as doubtless many have thought before, that there may still be numbers of valuable and interesting plants growing in the vast continent of South America which are still unknown to us in these islands. One can hardly expect that in Chile and the other countries in the

many of which are fairly hardy. The list is not complete, by any means, but the subjects named are worthy of note among the many beautiful plants from Chile.

Abutilon vitifolium is a rapid-growing shrub with attractive, greyish white leaves and producing masses of pale grey-blue flowers, which are very striking. It succeeds in most districts on a south-west wall, and in very sheltered localities as a shrub without the aid of a wall.

Aristoteliass are chiefly regarded as foliage shrubs, the variety known as *Macque variegata* having finely marked foliage of several colours.

The *Azara* is another shrub which is worth growing for the foliage alone, the best-known form being *A. microphylla*, which produces in abundance small, shining green leaves that are most attractive even in the dullest part of our winter. As a climber this is invaluable for north or east walls, where many plants are not a success. The other varieties are not quite so well known, and not quite so hardy, as a rule.

Berberis Darwinii is one of the most beautiful evergreen shrubs that we have, both for its foliage and the beautiful orange yellow flowers, which are produced in May. This valuable plant is suitable for the shrubbery, for massing where distinctive features of colour are desired, or for an informal hedge, and is very hardy.

Desfontainea spinosa is a shrub of Holly-like growth, which produces very beautiful, tubular flowers of rich yellow and red. While this shrub is not as hardy as some of the others, the beautiful flowers, which are borne with comparative freedom, well repay any trouble that may be taken in its cultivation.

Eccremocarpus scaber (*Calampelis*) is a delightful climber which produces orange red flowers in late summer, and, though not regarded as being hardy, this plant frequently comes up from the base year after year without protection of any kind.

Ercilla or *Bridgesia spicata*.—

This plant is useful for its olive green leaves, which are retained throughout the winter; and for its flowers, which, if not

striking in colour, are produced early in the year.

The Family of *Escallonia* is rather a large one, but all its members are found in Chile or the immediately surrounding countries. They are too well known to require description, but are certainly among the most valuable plants we have for covering fences, &c., or for hedges in the milder parts of the country; valuable also for the hybrids which have been produced therefrom, and of which we shall certainly see other fine novelties.



ABUTILON VITIFOLIUM, A BEAUTIFUL SHRUB FOR A SOUTH-WEST WALL.

far South-West there will be found the vast quantity of interesting shrubs that have been found in North America or China; but a very slight acquaintance with the shrubs, &c., from these regions shows that many very beautiful subjects are found there, leading one to think there may be others still to come. Another interesting fact noticeable when dealing with these plants is that several large and well-known genera of shrubs are represented in Chile by one species only.

A few well-known subjects are now mentioned which are worthy of a place in the garden, and

Eucryphias are among the choicest of our flowering trees. Two forms are well known, *E. pinnatifolia* being the hardier of the two, and producing very beautiful white flowers that resemble a St. John's Wort in shape and construction. This flowers when quite small, and sometimes when not more than 2 feet or 3 feet high. Under favourable conditions *E. cordifolia* attains a height of 20 feet, and its large white flowers are always greatly admired.

Fabiana imbricata is a very beautiful half-hardy shrub suitable for growing on a low wall. It is of Heath-like growth and bears multitudes of white, tubular-shaped flowers in early summer.

Lippia citriodora, or what is familiarly known as the Lemon-scented Verbena, is much too well known to need description, but must take its place among the Chilian section of shrubs.

Myrtus Ugnii is certainly one of the best of the Myrtles, and whether in flower or fruit is a most desirable shrub and much hardier than is commonly supposed.

The **Pernettyas** share with *Berberis Darwinii* the place of honour where hardihood is the test of these beautiful plants. They are invaluable for planting in rather sandy or peaty soil, and produce berries of many shades of colour in the autumn, which remain quite bright till early spring.



A FAVOURITE SHRUB, EUCRYPHIA PINNATIFOLIA.

Quillaia Saponaria is an interesting, though somewhat tender shrub, chiefly remarkable for its reputed usefulness as a substitute for soap, the bark being used by the natives for this purpose.

Ribes is represented in Chile by one variety at least, this taking its name from the country in which it is found (though it has been renamed of late). This is quite a useful evergreen shrub with roundish, pale green leaves.

The **Solanum Family**, too, is represented in this Southern State, and certainly one of the most beautiful to be found there is *S. crispum*. This makes a fine display during summer with its masses of flowers so curiously like those of our cultivated Potato; hence the name by which it is often called, Potato Tree. It is of rampant habit, and where sheltered will make a huge bush or small tree.

Another shrub which we so easily associate with Japan is *Sophora*, or the Pagoda Tree; but this, too, has its relative on the wild coast of South America, for in Chile we find *S. tetraptera*, a most desirable plant that is very interesting for its curious hanging fruit as well as for its flowers.

Coniferae are represented in Chile by several noble species, notably *Araucaria imbricata* and *Libocedrus chilensis*.

E. WALTERS.

QUICK-GROWING CLIMBERS.

AS you have published my letter *re* shrubs and climbers, and the photograph of the house on which they grow (issue January 8, page 14), the names of the remainder, which have also done well, may be of interest to anyone requiring quick-growing ones. In the courtyard, facing west, and besides those already mentioned, are: *Rose Lady Waterlow*, which, put in last spring, is already growing above the doorway, and flowered very fairly; *Escallonia macrantha*, quite a large bush, and continuing to flower in late autumn, is next a *Carpenteria californica*, already quite 5 feet high, but which has not yet flowered; and an *Akebia quinata* is planted against the stack-pipe, which, however, is too hot for it in summer, and I have done much better with plants in a colder aspect, when the delightfully fragrant, claret-coloured flowers come out in very early spring. *Choisya ternata*, grown as a bush, which it does very quickly, is planted at the side of the door to cover the possibly "leggy" stem of the blue *Solanum*.



EUCRYPHIA CORDIFOLIA, A BEAUTIFUL SHRUB FOR A SUNNY SITUATION.

Then comes Ivy and a purple Vine, which is not slow-growing in an aspect which suits it, and it keeps its leaves and colour well into November. Next to this is *Jasminum primulinum*, already up to the first-floor windows, and next again is the Passion Flower and a *Pyrus japonica*; while the charming Rose Irish Elegance, always a delight with its scarlet buds and shell-pink flowers, fills up a space about 7 feet high.

A Japanese Honeysuckle, put to cover some bare old "ropes" of *Wistaria*, as being evergreen, has grown too rampantly, and is already on its way to the top of the bay. On the other face of the house is the large white Jasmine, also grown to the top of the first-floor window, and that most useful climber, the evergreen *Ampelopsis*, which, though it has the disadvantage—some will say a serious one—of not clinging, can be easily trained to reach the roof in a short time by having strips of rabbit-wire nailed on the house—which does not show at all—and its finely cut leaves and trails in summer, turning to purple in winter, are very decorative.

On the west side of the house are again Ivy (variegated), *Ceanothus Gloire de Versailles*, which grows and flowers profusely on into the autumn; *Ampelopsis Veitchii*; and *Forsythia suspensa*, one of the loveliest of spring wall shrubs, if the sparrows do not pick the buds to bits! *Cotoneaster horizontalis* also grows on this wall, making a brilliant patch of vivid flame colour in autumn.

On the east bay and front (facing south) are Ivy, *Clematis montana rubra*, lovely against the grey stone; and—one of the best wall shrubs—*Ceanothus Veitchii*, than which nothing grows more quickly, though supposed to like a warm soil.

On the east face of the house is a *Garrya elliptica*, also very quick growing, and attractive in winter with its long green catkins, but so untidy later on that it should never be given a choice place.

Now I have come to the end of the shrubs

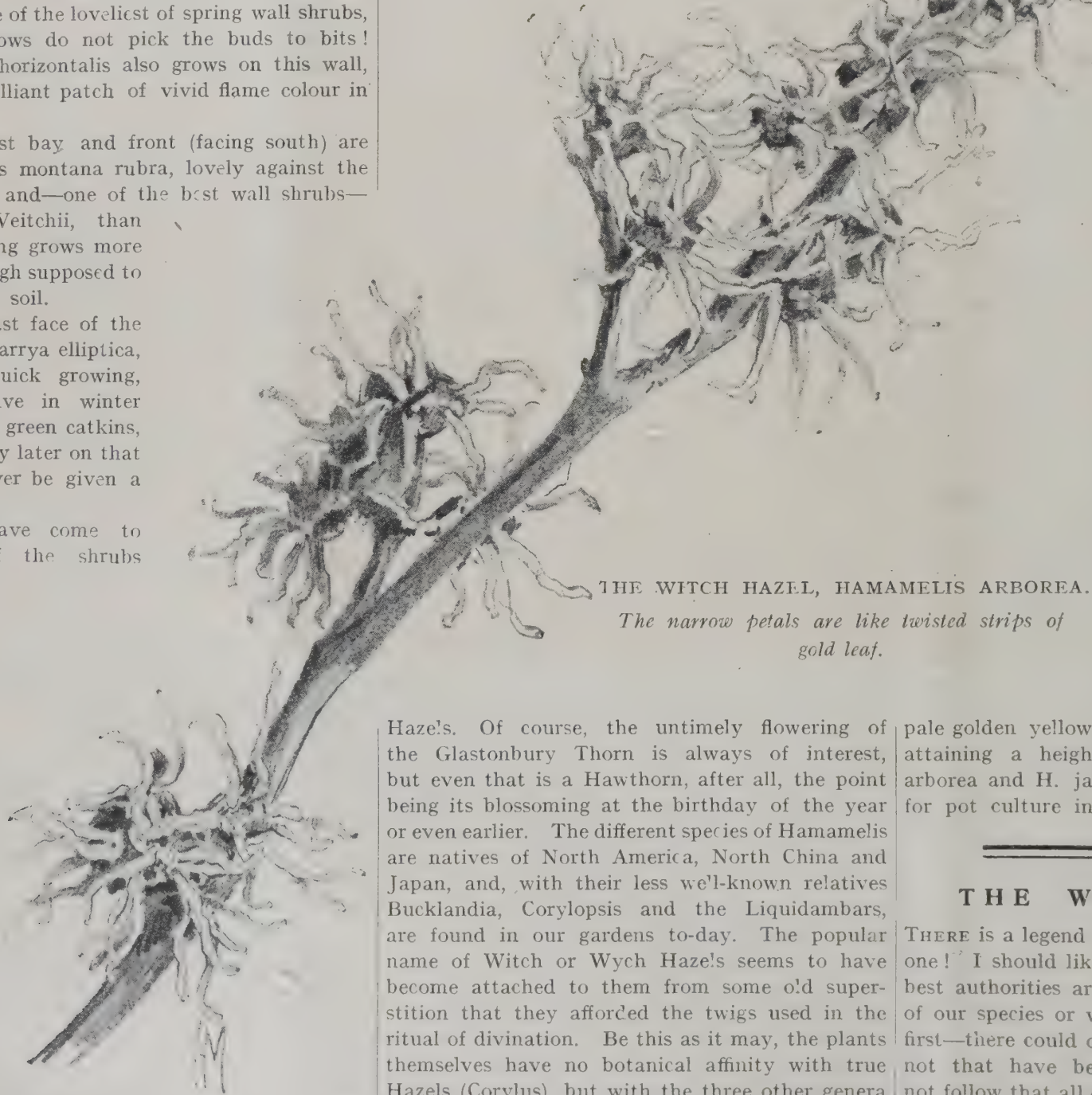
yet few climbers have more decorative foliage or sweeter-scented flowers than the bunches of curious green ones which cover it in late spring.

As will be seen, most of the things have been planted with a view to having evergreen ones at intervals in winter, to prevent the house looking bare, and this should always be aimed at in planting.

A. LA T.

THE WITCH HAZELS. (HAMAMELIS.)

AMONG an array of winter-flowering shrubs, such as the Winter Sweet (*Chimonanthus*), golden Winter Jasmine, *Cydonia japonica*, *Cornus Mas*, *Nuttallia cerasiformis*, *Clematis cirrhosa* and *Laurustinus* in variety, there is none that takes the eye and interests visitors so much as the different kinds of Witch



THE WITCH HAZEL, HAMAMELIS ARBOREA.

The narrow petals are like twisted strips of gold leaf.

and creepers, Ivy alone being on the north side of the house. If this were double the size I would put many more, and am already regretting the absence of a *Magnolia* and *Stauntonia latifolia* in the courtyard. The latter plant is so seldom met with,

Haze's. Of course, the untimely flowering of the Glastonbury Thorn is always of interest, but even that is a Hawthorn, after all, the point being its blossoming at the birthday of the year or even earlier. The different species of *Hamamelis* are natives of North America, North China and Japan, and, with their less well-known relatives *Bucklandia*, *Corylopsis* and the *Liquidambars*, are found in our gardens to-day. The popular name of Witch or Wych Haze's seems to have become attached to them from some old superstition that they afforded the twigs used in the ritual of divination. Be this as it may, the plants themselves have no botanical affinity with true Hazels (*Corylus*), but with the three other genera above named they enjoy a small Natural Order (*Hamamelideæ*) to themselves. It is, however, as ornamental garden shrubs that they best deserve notice, two species being very beautiful in winter; these are *H. arborea* and *H. japonica zuccariniana*.

pale golden yellow. It is a strong grower, soon attaining a height of 10 feet or 12 feet. *H. arborea* and *H. japonica* make attractive plants for pot culture in a cold or cool house.

THE WHITE ROSES.

THERE is a legend that the first Rose was a white one! I should like to think it was true, but the best authorities are against it, and certainly few of our species or wild Roses are white; but the first—there could only have been one first—might not that have been white? It certainly does not follow that all of them must have been descendants of the first, although some would have it so.

And what is true of the species is true of the varieties derived therefrom. How few of them are white—really white. Can any of your readers tell me the name of the purest white of all white

Hamamelis arborea in its native habitats in Japan grows 15 feet to 20 feet in height, and has purple-red flowers (calyces) with crimped or crumpled petals, like little bits of gold wire. The branches are olive or greyish brown, and the buds of a rich fox colour. Even quite small plants are thickly set with their

quaint flowers, and look very pretty on the grass with a background of sombre shrubs. A little branchlet or two in an old bronze bowl on the breakfast table is a surprise to most people fond of flowers. The other species,

H. japonica, has a more lax habit and pale lemon yellow petals, but is at the same time extremely graceful and effective. It is wild in North China and Japan. *Zuccariniana* is a variety of it. A third kind is the better-known

H. virginiana, which flowers in September just as its leaves die off a mass of

Roses? I cannot pretend to have compared more than a few, but all the better-known varieties I have compared, and the result was somewhat in the nature of a surprise.

The Rose that appeared to be the purest white was Blanc Double de Coubert, the semi-double Rugosa. Frau Karl Druschki, which would get, I suppose, the majority of casual votes, is but a thin skim-milkish white in comparison.

No; the pure white is the rarest of all the primary colours among flowers, and it certainly is so among Roses. Nearly all "white" Roses (so called) have a touch or drop of yellow left in their colour scheme that makes them cream, and that renders them quite *hors concours*.

One of the most beautiful of all double Roses, White Maman Cochet, comes into this category, so much so that to me *White Maman Cochet* has always been a misnomer of the baldest description. It never was and never will be white, only sometimes it is a paler cream than at others—but white, never. And one can run through the whole catalogue of white Roses, and rule them nearly all out. This is flesh, that lemon, those cream, these blush, that one ivory, and so on, until there are only a few left that can be termed white; and of these I should like to know which is the whitest.

HERBERT E. MOLYNEUX.
Southampton.

BORDER CARNATIONS.

READING an article by the Rev. Joseph Jacob entitled "Some 'W.G.'s' of the Garden" in a recent issue of THE GARDEN, the mind wandered wistfully back to the happy, peaceful days when Lord's or the Oval was the Mecca of desire in the summer sunshine; to the time when the Australians were with us, not in khaki and cockaded wide-awakes, but as heroes of the cricket field searching for the famous ashes of the English national game. How long ago it seems, and how altered the expression of daily life since then! We all remember how, after the selection of the English Eleven, experts would assert themselves in the sporting Press with alternative elevens which seemed almost as good as the original choice. And it is this latter idea which brings me back to Carnations, for I find myself wondering how certain varieties can be left out of any reasonably good collection, more especially as most amateurs have a distinct affection for curiously or uncommonly coloured flowers which are not necessarily up to the highest pitch of perfection for exhibition purposes. If, therefore, another collection of twenty-four varieties were suggested, it would necessarily contain a large number of fancies which give free play to the wonderful combinations of colour so often seen in Carnations. The following would be a very interesting lot, showing almost every colour known to the flower border except blue:

White and Blush.—Furthest North and Ilene.
Purple and Lavender.—Purple Emperor, Regal, Duchess of Wellington and Greyhound.

Yellow, Buff, or Apricot.—Golden Oriole, Goldylocks and Robert Bruce (illustrated).

Scarlet.—Jean Douglas and Firefly.

Pink.—Mrs. Robert Gordon (extremely free flowering).

Deep Crimson.—Lord Nelson.

Fancies.—Gloriosa, apricot ground with scarlet; Banshee, lavender, flaked with scarlet, good petal; Persephone, slate coloured, marked rose; John Kidd, yellow ground suffused with brilliant rose; Linkman, similar, but with scarlet markings; Mrs. J. L. Gibson, buff ground suffused with rosy lilac; Osprey, buff, profusely spotted with red; Skirmisher, mauve ground, rose markings; Twilight, scarlet flakes on deep lilac ground; Mrs. Robert Gibson, beautiful orange with a broad



CARNATION ROBERT BRUCE.

edge and suffusion of heliotrope; Harlequin, pale yellow, striped and banded with rose and crimson.

Although, as suggested, these flowers are not recommended to the grower who only thinks of Carnation shows as the be-all and end-all of his blooms, yet many of them have been frequently exhibited even in Mr. Douglas' first-prize lots, and there is not a single plant in the collection that is anything but desirable.

I have been asked to write about Picotees in an early issue, and in deference to several of my correspondents I propose to make this branch of the Carnation family the subject of my next article. I hope before long also to give some helpful hints regarding the potting up of plants for under-glass culture, as this is best done early in the year, so as to give a long period of root growth.

J. L. GIBSON.

SHOULD NERINES BE CALLED GUERNSEY LILIES?

BY THE REV. JOSEPH JACOB.

A FEW years ago it would not have been worth while considering the above question in a gardening paper, for Nerines were so little known and cultivated that the discussion would only have been followed by a comparative few. Now, however, that the family have, as it were, gained a settlement in our green-houses, the point, which was formerly of academic interest alone, becomes one of practical politics. Are we to call all our Nerines—*pudica*, *undulata*, *sarniensis*, &c.—Guernsey Lilies or not?

The present is a good time to discuss the question, because if the English appellation is neither a good nor an appropriate one, we should try to arrest its getting into more general use before it is too late and beyond the power of man to stop it.

This article is written at the request of one of the largest growers and raisers of seedlings in the Channel Islands. My correspondent suggests that Guernsey Lilies as a generic title will have an unhappy influence on the future of the race, since the old original Guernsey Lily is such a shy bloomer that the adoption of the name for the whole family would have a wet-blanket tendency on an extended cultivation which, in the words of the preface to the Communion Service, is a consummation "much to be wished."

The facts are these: The name Guernsey Lily was originally given to *Nerine sarniensis*, or, to be quite accurate, the name *N. sarniensis* was given to the Guernsey Lily, by Dr. James Douglas in 1729 or a few years previously. It has always been difficult to get it to flower freely, so much so that it was frequently stated that if it flowered once it never

flowered again (Woolridge and Charles Evelyn). Thomas Fairchild, the great Hoxton nurseryman, in 1724 found a means of getting "the same roots to blow again in four years' time," which is probably almost as frequent as the ordinary cultivator does now. Although *sarniensis* keeps up its character, new varieties and hybrids are being distributed which "blow" year after year if they are properly treated. Turning to modern works on gardening, we often find the name Guernsey Lilies applied to Nerines, although Nicholson in his dictionary, it must be owned, does not.

What is the wisest and best course to pursue? Keep on writing and talking of Guernsey Lilies, meaning the whole tribe of Nerines; use the word *Nerine* only, except when *N. sarniensis* is meant; or coin or revive some other designation?

NEW AND RARE PLANTS.

AWARDS OF MERIT.

Cotoneaster horizontalis purpusilla.—This variety resolves itself into a cushion-like formation with, later, trailing rather than horizontally disposed branches, the latter freely set with scarlet fruits. From the Hon. Vicary Gibbs, Aldenham House, Elstree (gardener, Mr. E. Beckett).

Begonia Norbury Park.—One of the Gloire de Lorraine set, with creamy white, pink-tinted flowers. Exhibited by Mr. G. Kent, Norbury Park, Dorking.

NEW ORCHIDS.

Laelia Flaviona.—Sepals cream-coloured, veined with rosy purple. From E. G. Mocatta, Esq., Woburn Place, Addlestone (gardener, Mr. T. Stevenson).

Odontioda Irene Glorita.—A hybrid of uncommon colour. From Messrs. Flory and Black, Slough.

Cattleya chocoensis McBean's Variety.—Pure white. From Messrs. J. and A. McBean, Cooksbridge.

Cattleya percivaliana grandiflora.—Notable for its immense size and bright rose colour. From Messrs. Stuart Low and Co., Jarvisbrook.

The foregoing awards were made at the meeting of the Royal Horticultural Society on January 11.

TRAINING FRUIT TREES ON WALLS.

THERE is an impression, at least among the uninitiated, that the strict training of fruit trees on walls is carried out rather with the idea of displaying the gardener's skill than for any practical purpose. This, however, is quite a fallacy, for in this practical age fruit trees are trained with a view to utilising the wall space to the greatest possible advantage. Fruit ripened on a warm wall is well known to be of superior quality and flavour to that ripened in the open, and this is especially the case with Pears, Plums and Gages. Moreover, fruit trees on walls often produce good crops when trees in the open are a failure. This is not to be wondered at, since it is an easy matter to protect the fruit blossom on the approach of frost by covering the trees with tiffany or even fish nets, for it is surprising how much frost even such a light covering will keep out.

Methods of Training.—It is proposed to deal with three types of tree only, viz., cordon, fan-shaped, horizontal or espalier. These are the three most useful methods of training, and if they are understood, no difficulty will be experienced in training trees to furnish the gable end of a building or to cover a brick archway, for which purpose Pear trees are the most suitable. If not already done no time should be lost in planting, and we advise readers not to nail the trees permanently to the wall until the spring,

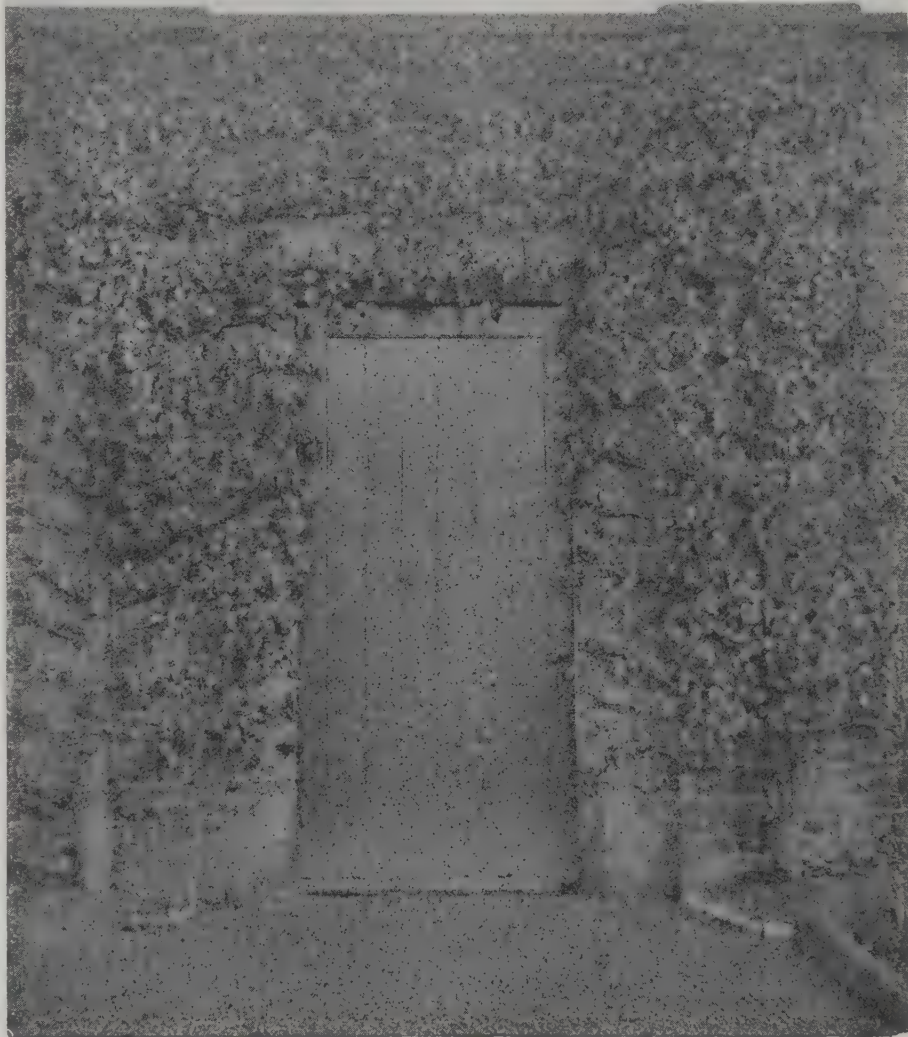
for the soil is almost sure to sink, and this would have a disastrous effect upon trees that are securely fastened to the wall. In order to better understand what is meant by the various forms of trees, we refer readers to the accompanying illustrations.

The Cordon Tree.—This simple type of tree produces the finest Apples and Pears for exhibition purposes. On low walls Gooseberries and Red Currants give capital results when grown on this principle. The single cordon has one main stem, which, if well trained, should be as straight as a ramrod, and furnished almost from the ground level upwards with fruiting spurs. It is a common failing to crop young cordon trees far too heavily, the result being poorly-developed, ill-shaped and short-lived trees. Double cordons and triple

Horizontal or Espalier Trees.—It is doubtless very puzzling to the uninitiated to understand how trees can be trained so regularly with branches running off exactly at right angles to the main stem, and arranged tier upon tier at regular intervals of about 15 inches apart. In reality there is no difficulty in this mode of training, so long as the trees have received the correct treatment during the first few years of their growth. After the first season's growth, the young tree, or maiden as it is termed in the nursery, is cut hard back, if possible to a place where three buds are situated close together on the stem. The top bud forms next year's leader, while the two side ones form a low pair of side branches. Next year a similar operation is repeated. The leader is cut to a

place within about 15 inches of the first tier at a point where three buds are closely situated. The top bud continues on its upward course and is trained vertically upright to form the leader, while the two side buds make the second tier of branches, and so the process continues until the leader has reached the top of the wall, when it is stopped, the side branches continuing their lateral course. It sometimes happens that one side branch makes vigorous growth at the expense of the branch opposite. In such cases a balance of growth is established by depressing the strong growth until such a time as the weaker branch has caught up, when the depressed branch may be raised to again assume a horizontal position. In the event of losing a side bud or growth, this may be replaced by budding or shield grafting at the point where the side branch is required. No spurs should be allowed to develop between the branch and the wall. As a rule, one pair of tiers each season is sufficient until the tree has attained the required height. The young growths must be tied down gradually in their early stages to assume their permanent positions. The number of tiers depends on the height of the wall; in ordinary circumstances ten tiers are as much as space will accommodate. The great aim is to make each branch of the espalier as full of fruiting spurs as a well-trained cordon, and in order to accomplish this, summer pruning and hard spur pruning in winter are both necessary.

Fan-Trained Trees.—This is another formal type secured by skilful manipulation and hard cutting back of the tree in its first few years. A fan-shaped tree should have no vertical leading shoots, all the main growths radiating from a point low down on the main stem. This system is well adapted to Peaches, Nectarines, Apricots, dessert Cherries and Morello Cherries. The last named are perhaps the most satisfactory of all fruits on a north wall, although they are worthy of a better position. Dessert Cherries should be spur pruned, but Morello Cherries, Peaches, Nectarines and Apricots produce their finest fruits on young wood, which should be trained to the wall. With fan-shaped trees, only the growth on the upper side of the main branches should be selected; this will prevent the overcrowding of growth and,



PEAR TREES TRAINED OVER A DOORWAY IN THE ROYAL GARDENS, WINDSOR.

cordons are similar except that the main branches are restricted to two and three branches respectively. By hard pruning the side branches are only allowed to develop as fruit-spurs. Pruning should take place both summer and winter, in the first place to six buds or leaves, and in the second place to two or three buds. Fruit-spurs, however, must never be pruned. There is an axiom in fruit culture which says once a fruit-spur always a fruit-spur. In order to give the cordon tree a greater length of head room—and this is very necessary in the case of low walls—the trees should be trained in an oblique manner. It matters little which way the trees are allowed to slope, but they should, of course, all slope one way on the same wall.

above all, the crossing of one shoot over another, which is not to be countenanced in any form of trained tree. Six healthy main branches, radiating from a common centre, are sufficient for a fan-trained tree, and the outside branches should run parallel to and about a foot from the ground-level, the tree as a whole forming a true fan. Plums fruit both on spurs and on the young wood, and they may be successfully trained in either of the methods described. Overcrowding of the growth must be avoided, and it is often necessary to thin out the young shoots very considerably. Old Plum trees may be rejuvenated by cutting out very old branches and training new ones to take their place. Sweet Cherries fruit on the old wood, and should be spur pruned like an Apple or Pear.

North and East Walls.—The question is often asked, "What can I grow on a north wall?" To this we reply, Morello Cherries, Currants, Gooseberries and Sweet Cherries for keeping late. The same fruits would succeed on an east wall, also early Pears and Plums for late keeping.

South and West Walls.—Peaches, Nectarines, Apricots and late Pears should be given the warmest situations; while Apples, Plums and Cherries of all kinds will thrive on a west wall.

The Purchase of Trees.—So much depends upon the correct training of the trees in their first few years that we cannot too strongly recommend readers to purchase trees only from those firms which have a high standard of reputation to maintain. Generally speaking, it is best to

purchase trees that are from three years to six years old. It is better to purchase young trees than to attempt to bud or graft them in the garden at home. So much depends upon the selection of suitable stocks for the trees; while certain Pears, Marie Louise, for instance, require to be double grafted. The nurseryman, who makes a special study of budding fruit trees, is in the best position to select the most suitable stocks for various trees. Fruit trees are sometimes advertised from sale rooms, and by nurserymen who have no reputation to maintain, as being so many feet in height. The height of a young tree

may be a great disadvantage; in any case it is the foundation of the tree that matters, and it is left to the gardener to continue the good work of the nurseryman. The accompanying illustrations depict well-trained trees in the Royal Gardens, Windsor, whence the high walls surrounding the kitchen garden are used to the best advantage.

Selection of Varieties.—The following Apples and Pears, given in their order of ripening, are suitable for growing as cordons or espaliers:

Dessert Apples.—Langley Pippin, Lady Sudeley, James Grieve, Allington Pippin, King of the Pippins, Cox's Orange Pippin, Claygate Pearmain, and Sturmer Pippin.

Kitchen Apples.—Stirling Castle, Golden Spire, Rev. W. Wilks, Lord Derby, Blenheim Orange, Lane's Prince Albert, Newton Wonder, Bismarck and Bramley's Seedling.

Dessert Pears.—Williams' Bon Chrétien, Marguerite Marillat, Louise Bonne of Jersey, Marie Louise, Doyenné du Comice and Winter Nelis.

The following are recommended as fan-trained trees:

Dessert Plums.—Coe's Golden Drop, Green Gage, Jefferson, Denniston's Superb, Victoria and Transparent Gage.

Peaches in the Order of their Ripening.—Early Alexander, Duke of York, Early Rivers, Hale's Early, Dr. Hogg, Royal George and Princess of Wales.

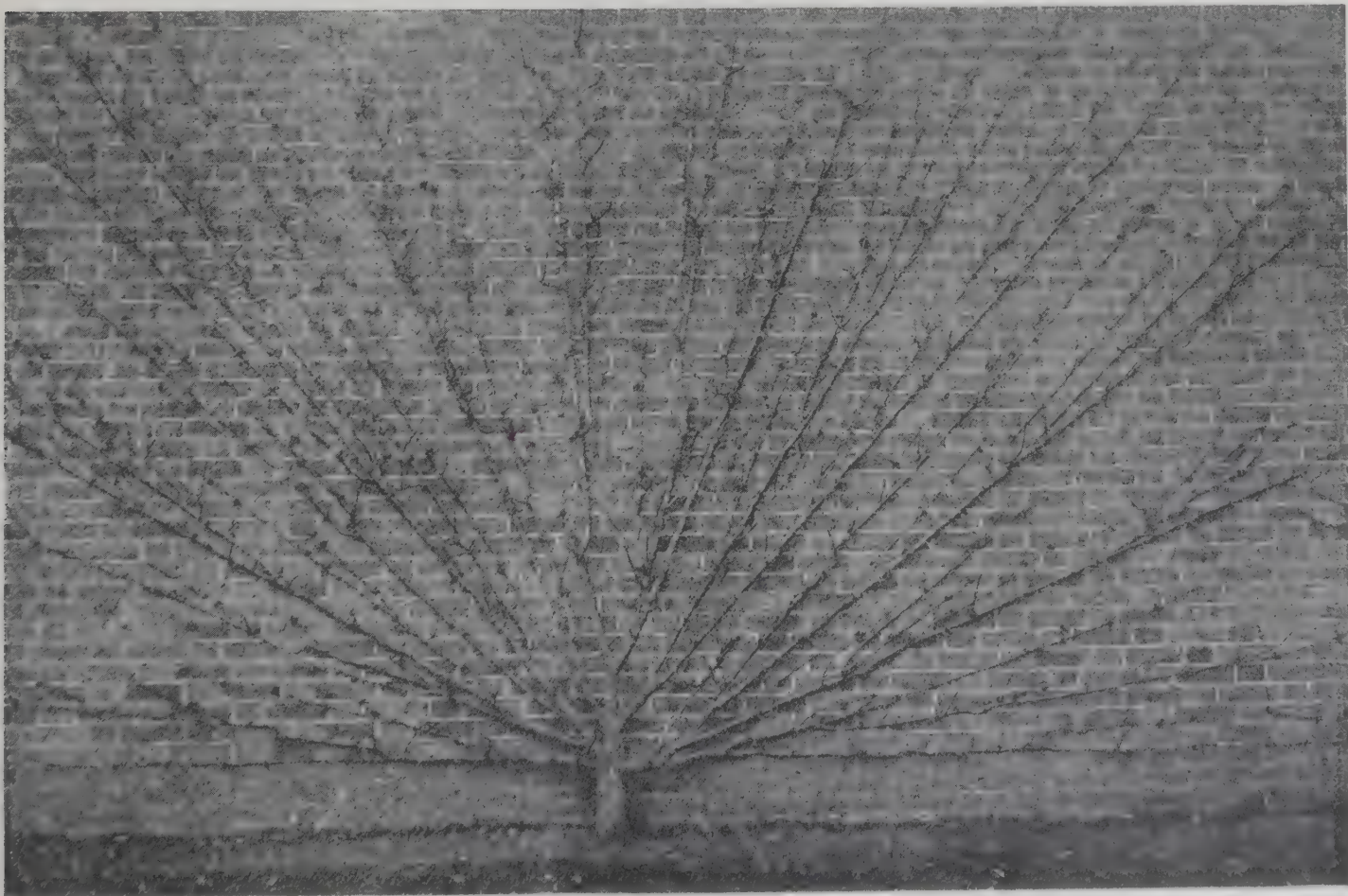
Nectarines.—Cardinal, Early Rivers, Lord Napier and Humboldt.

Dessert Cherries.—Belle d'Orléans, Bigarreau Napoleon, Black Eagle and Frogmore Early Bigarreau. For kitchen purposes: Morello and Empress Eugénie.

Apricot.—Moorpark. H. C.



A WALL OF ESPALIER-TRAINED PEAR TREES.



A FAN-TRAINED TREE OF MOORPARK APRICOT.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

Cleansing Trees.—Where trees are grown in confined areas, the stems are often overgrown with moss and lichen. Special tools, such as wire brushes, are available for the worst examples, but this is not always desirable or necessary. A good spraying with Cooper's Winter V Fluid will be found very beneficial in removing these parasitic growths, and if the trees are cleansed annually in this way, many insect pests will also be destroyed, while the quality of the fruit crop will be greatly improved. Orchard-grown trees should be treated likewise, particularly where the orchard is laid down to grass. The trees should be sprayed while they are dormant, or at any time during the next few weeks.

The Kitchen Garden.

Potatoes.—Plant early varieties in cold frames or pits, where such convenience exists. May Queen and Sharpe's Express are both excellent kinds for early work. Other tubers should be selected and arranged in trays or shallow boxes, and kept in a cool, well-ventilated shed to encourage short-jointed and sturdy sprouts. These tubers will come in useful for a warm border.

Carrots in Frames.—A sowing of a reliable stump-rooted kind can be made, if sufficient material can be collected to make up a mild hot-bed. Protection from frosts will be necessary.

Tomatoes.—Seeds should now be sown, and the pots or pans placed in a temperature of 65° to 70° until the seeds have germinated. Keep the plants near the roof glass, and pot off singly when large enough.

The Flower Garden.

Begonias.—Where the tuberous-rooted Begonias are employed for bedding, it is always advisable to raise a few from seed annually. If sown now, some nice plants will be ready by June, which will, at any rate, be large enough for an edging to the beds. The remainder can either be grown on in pots or planted out in the reserve garden.

Propagation of Bedding Plants.—No time ought to be lost in propagating such plants as Salvias, Lantanas, Marguerite Mrs. Sander, Verbenas, Iresines, Heliotrope, &c., and for this purpose a propagating-case is essential. When rooted, the cuttings should be gradually inured to the atmosphere of the house, and then potted off singly.

Fruit Under Glass.

Strawberries.—The earliest batch of plants will be growing freely, and those approaching the flowering stage can be arranged on a shelf near the roof glass. Admit air on all favourable occasions during the forenoon, and about midday dust over any flowers that happen to be open with a camel-hair brush. Strawberries under glass are liable to be attacked by red spider, so, when the fruit is set, the plants, especially the under sides of the leaves, should be syringed with tepid water twice daily. Introduce further batches for succession in a temperature of 45° by night, with a rise of 10° during the day.

Plants Under Glass.

Seeds to Sow.—A few seeds may now be sown, especially Gloxinias, Begonias (for conservatory decoration), Saintpaulia ionantha, Gesneras, Ardisia crenulata, Smilax and Asparagus Sprengeri.

Euphorbia (Poinsettia).—A few of these plants should be dried off gradually and then stored in a temperature of 45° to 50° to furnish a batch of cuttings later on. Here they should remain until growth begins. Examples of *E. fulgens* or *jacquiniæflora* must be kept in a warm house and given sufficient water to prevent the stems from shrivelling.

Gloxinias.—A small batch may now be started into growth. After removing the old soil, the tubers should be potted in a light mixture and not afforded much moisture until root action is evident.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)
Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Early Cabbages.—Autumn-planted Cabbages for early use should have the soil stirred between the rows, and a light dressing of nitrate of soda given them. I find they respond quickly to such treatment. The varieties Harbinger, Flower of Spring and April are most reliable for earliest crops, as these never run prematurely to seed like some of the older sorts.

Broad Beans.—A sowing of these should be made as soon as the soil can be got in good condition. If mice are troublesome, these must be guarded against by moistening the seeds with paraffin before sowing, and then shaking some red lead over them. Pheasants are very destructive to this crop. Being among the first of the tender crops to come through the ground, they are quickly selected for attention. The only plan is to place a cage of wire-netting over each row until the plants are well above the soil, any other means of preventing this enemy to the garden being usually prohibited.

Celery.—The litter or Bracken placed over the ridges for protection from frost should be removed in mild weather, but it will be as well to keep it at hand for some time yet, to be replaced should more severe weather threaten.

The Hardy Fruit Garden.

Spraying.—As soon as pruning and nailing is completed, trees and bushes should be sprayed with one of the alkali preparations. Choose a quiet day for applying it, and preferably when a touch of frost is on the ground. The work is then carried out under much more favourable conditions than when the ground is soft. Old clothes and rubber gloves are necessary as the liquid destroys the clothing and damages tender skin. It is advisable to purchase a good type of spraying machine, without which the operation is neither efficient nor economical.

Fruit Under Glass.

Vines.—Disbudding should be attended to as soon as it is seen which growth is likely to provide the best bunch. Leave only as many buds as will be required to furnish the roof. If the spurs are properly distributed, one bud to each spur will be sufficient, so that all the energy of the Vine may be directed towards the shoots for carrying the fruit. During cold weather, when a good deal of fire-heat is required, frequent damping of the borders and paths is necessary to keep the atmosphere moist. Watch especially for dry corners near the hot pipes, for these encourage red spider, the worst of all pests to the Grape grower.

Peaches and Nectarines in Pots.—Where these are used for earliest crops, some may now have them in flower or with their fruits set; and if the latter are in abundance, a portion of the fruits may be removed, leaving the final thinning till later on. Disbudding will also need attention, doing this gradually. A well-placed bud should always be left near the base of the branch, and one or two higher up, pinching them at the second or third leaf. Syringe the trees regularly, and check at once any appearance of fly. Careful watering is also necessary at this stage, as any extremes will cause the fruits to drop.

Figs.—Early Figs should now be moving, and if the borders are restricted and well drained, the roots may be given abundant supplies of water, and the trees regularly syringed. An average temperature of between 50° and 60° will be sufficient until the fruits are well advanced.

Plants Under Glass.

Potting.—A general overhaul should be given to the permanent plants in the stoves, repotting any that require it. Palms do not require this attention annually, but there are generally a few that from hard usage get loose in their pots. These should be placed into fresh pots, using light fibrous loam and a little peat, and making them firm.

Crotons.—Specimen plants should be given a shift sufficient to carry them through the season, using a good heavy loam to which some bone-meal has been added. Cuttings may also be put in

at this season, and rooted in a brisk bottom-heat to provide table plants for autumn.

Dracænas.—Young plants of these should be potted on in a light, open compost, and a fresh stock propagated by cutting up the stems or rootstocks into pieces about an inch long and placing them in pans in the propagating-house.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

OBITUARY.

JAMES JEFFREY.

On January 6 there passed away, after a long illness, one of the best and most respected of Scottish gardeners in the person of Mr. James Jeffrey, who has for the last sixteen years been gardener to the Hope family at St. Mary's Isle, Kirkcudbright. Mr. Jeffrey, who was sixty-six years of age, was a native of Berwick, and commenced his gardening career in the nurseries of Messrs. Waite, Berwick-on-Tweed. Proceeding to Clovenfords Vineries as under-gardener, he afterwards received an appointment as gardener at Achnacarry Castle, Inverness-shire, the seat of Cameron of Lochiel. Thence he proceeded to Craigcleuch, Dumfriesshire, whence he received the more important appointment of gardener at Cyfarthfa Castle, Glamorganshire, the seat of the Crawshaw family. His abilities were so much appreciated by his employer that he was invited to take charge of the newer garden of Mr. Crawshaw at Caversham Park, Oxfordshire.

From Caversham Park Mr. Jeffrey moved to Harewood House, the Yorkshire seat of the Earl of Harewood, where he remained for a considerable time. Here he had the gratification of renewing in a most successful manner the noted Harewood Hall Vine, the details of which operation gave much interest to Vine-growers when made public. At Harewood House he was also a highly successful cultivator of stove plants, and he recalled with gratification the flowering there of *Amherstia nobilis* within three years of its importation. Mr. Jeffrey's next appointment was to St. Mary's Isle in Kirkcudbrightshire. Here he was destined to end his days, after many years of excellent work which redounded to his credit and gave ample evidence of his horticultural abilities. During Mr. Jeffrey's service many improvements were carried out, and the gardens of St. Mary's Isle became recognised as among the most attractive and best kept in Scotland.

The flower garden department was one in which he took a keen delight, and the gardens have long been noted for their beauty and picturesque effects. He early recognised the value of the Polyantha, Wichuraiana and other climbing Roses, and these aided largely in the decoration of the beautiful gardens. Mr. Jeffrey introduced Bamboos to St. Mary's Isle, and the wonderful manner in which they grew showed the acumen he had displayed in attempting them. Many other plants not commonly seen in Scotland were also introduced with success, and the results have been highly gratifying. It may be said, in brief, that Mr. Jeffrey was an all-round gardener of exceptional ability. He frequently contributed to the horticultural Press, his articles being marked by their practical information and showing the results of long experience.

THE GARDEN.

No. 2306.—VOL. LXXX.

JANUARY 29, 1916.

NOTES OF THE WEEK.

Retirement of Mr. James Jack.—For thirty-two years Mr. Jack had charge of the great Vine at Hampton Court Palace, and he now passes into well-earned retirement with the best wishes of his many friends and with the satisfaction of leaving his important charge in a far better condition than he found it. Mr. Jack is a native of the village of Davidson's Mains, near Edinburgh, where he was born seventy-six years ago, and he has followed the pursuit of gardening from boyhood with that keen aptitude inherent of his race.

The Great Vine at Hampton Court. The Vine, which for many years has had a girth of over 5 feet near the ground, is a Black Hamburgh, and is rightly regarded as a national treasure. It was obtained as a cutting from Valentine's estate in Essex nearly a century and a half ago—in 1768 to be exact—and what is of special interest is that it was obtained by the immortal Mr. Brown of landscape gardening fame. Verily "Capability Brown" was well and appropriately named.

A Beautiful Hibiscus.—Both in the greenhouse and outside, the shrubby Malvas, or Hibiscuses, are valuable garden plants. *H. Waimeæ* or *H. arnottianus* is a species of comparatively recent introduction from the Hawaiian Islands. The illustration depicts a flower from a plant obtained from a Californian nursery under the name of *H. arnottianus*. As this name was already in use for an older and very distinct species, the name *H. Waimeæ* was substituted. It is a vigorous-growing shrub or small tree allied to the well-known *Hibiscus Rosasinensis*, and like that species can be pruned to meet the accommodation afforded in greenhouses of moderate dimensions. The white flowers are large and showy, the segments 4 inches to 4½ inches long and proportionately wide, with a conspicuous red staminal tube 6 inches long.

Allotments in Surrey.—There are 10,000 allotments in Surrey, and, in the opinion of Mr. A. E. Burgess, the Superintendent of Horticulture to the Surrey County Council, the present allotment holders and cottage gardeners in the county could collectively produce vegetables to the value of £5,000 from their ground in addition to what are at present grown. After visiting hundreds of allotments and cottage gardens every year, Mr. Burgess has come to the conclusion

that where we fail is in lack of organisation, while very few do their best and show the utmost that can be done.

Surrey Farmers and Poor Pastures.—The farmers of the county have been approached with a view to ploughing up their poor pasture land which was not very remunerative, and to sowing it with Corn or other foodstuff. Replies have been received from farmers, whose collective promise means that 1,800 acres more will

for the help given to her by the Institution for so many years. She and her husband, who had been on the funds until his decease in 1899, together received no less a sum than £464. We cannot speak too highly of this Institution, which brings happiness and comfort to aged gardeners, their wives and widows. It is, however, sad to record that the committee in its report is only able to recommend the election of eighteen annuitants from an approved list of sixty-one candidates. Subscriptions needed to carry on this good work should be sent to the secretary, Mr. G. J. Ingram, 92, Victoria Street, S.W.

A Beautiful Burnet.—The genus *Poterium* has given us few species of any horticultural value from a decorative point of view previous to the introduction of *Poterium obtusatum*. This Japanese species is however, a noteworthy exception and few plants of recent introduction are more attractive. It differs very little in habit of growth, but the flower-scapes are of a delightful shade of carmine pink. It is very floriferous, throwing up during summer and autumn a continuous supply of much-branched leafy flower-stems, which reach a height of from 3½ feet to 4 feet, and present a charming and graceful appearance. For the herbaceous border, this plant will take a prominent place when better known.

Board of Agriculture Appointments.—The President of the Board of Agriculture and Fisheries has appointed Sir James J. Dobbie, M.A., D.Sc., LL.D., F.R.S., and Mr. J. R. Campbell, B.Sc., of the Department of Agriculture and Technical Instruction for Ireland, additional members of the Departmental Committee which is making arrangements with a view to the maintenance, so far as possible, of adequate supplies of fertilisers for the use of farmers of the United Kingdom. Mr. H. Chambers has been appointed Secretary to the Committee vice Mr. H. D. Vigor, resigned.

The Right Hon. Henry Hobhouse has been appointed Chairman of the Departmental Committee on the Settlement and Employment on the Land of Discharged Sailors and Soldiers, in the place of Sir Harry Verney, Bart., M.P., who has received a Commission in the Army. Mr. H. L. French of the Board of Agriculture and Fisheries has been appointed Secretary to the Committee.



HIBISCUS WAIMEÆ. THE LARGE WHITE FLOWER HAS A CONSPICUOUS RED STAMINAL TUBE.

be cultivated in 1916 than was the case last year.

An Aged Beneficiary.—In the annual report of the Gardeners' Royal Benevolent Institution which appears on another page of this issue, reference is made to Ann Allen, who passed away at the great age of 101 years, having been born in 1814. She retained her mental faculties until the last, and was always extremely grateful

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

The Gentianella in January.—It was an unexpected pleasure to observe a bloom of the *Gentianella*, *Gentiana acaulis*, on a clump in the garden of Mr. E. A. Hornel, at Broughton House, Kirkcudbright, on January 10. The *Gentianella* also blooms very freely at Broughton House in its proper season, and gives a fair sprinkling of flowers at several other times.—S. A.

The Gardens of Taymouth Castle.—I quite enjoyed reading Mr. Blair's notes on Taymouth Castle Gardens, Perthshire, in your issue of January 8. His claim for Perthshire as being the largest county in Scotland is too wide of the mark, however, to be allowed to pass unchallenged. Inverness-shire is the largest county in Scotland, with an area of 4,231.62 square miles; while Perthshire comes in fourth, with an area of 2,601 square miles.—CHARLES COMFORT.

"Chrysanthemum Successes and Failures." With reference to the above article by "S. E. D. T., Bridgnorth," in THE GARDEN for January 8, I should like to mention what I consider to be among the best whites. Purity Single and Parsons' White, pinched once, will be found hard to beat from a decorative point of view, coming in about the beginning of November. White Countess, although classed as a border variety, is another good one at that date. During the month of December I find nothing to beat Niveus and Queen of the Exe, pinched twice; for blooms after the New Year, Nellie Pockett and Mrs. Clibran, pinched twice.—WILLIAM SMITH, *Seaview*.

Pollen Effect on the Melon.—Has it ever been suggested to you that if bees bring pollen from a Vegetable Marrow to a Melon, the flavour of the latter deteriorates enormously? This is largely believed in Sweden, where the Marrow is grown under glass sometimes.—MELON. [There is no good evidence to show that the source of the pollen has any immediate effect on the flavour or appearance of fruits such as the Melon, although it might, if no seeds were produced, reduce the amount of sugar formed, as is said to be the case in seedless Apples and Pears. It would alter the flavour very considerably if seedlings were raised from Melon seed crossed with the Vegetable Marrow. We are not sure that this cross has been effected, but it is a probable one.—ED.]

Large Asparagus.—The many methods of growing large heads of Asparagus are not altogether derived from the extra cultivation, but more often from sex selection, the flower of the Asparagus being unisexual and existing on separate plants; therefore the selection of the male plants is more likely to produce heavy growths. Visiting the Vale of Evesham last summer, I was greatly interested in the mode of Asparagus culture, and made close observations on the whys and wherefore of the production of these large growths, when, on examination, I invariably found the successes obtained were from male plants. The sex was shown under the microscope to several growers, who became greatly interested, as the idea appeared quite new to them. Several of these men had been growing the succulent commercially for many years and never knew of the distinction.—GEORGE J. LOVELOCK. [We were not aware that the male and female flowers of the Asparagus are borne

on separate plants, and we would like to hear the views of others on a subject of so much importance and interest.—ED.]

The Training of Vines.—The illustration on page 20, issue January 8, of one of the vineries at Taymouth Castle goes to prove, if it were necessary, the wisdom of the thin training of the rods, spurs and current growth as a means of success. Viewing the vinery in its entirety, one must acknowledge the fine bunches of Grapes on the base of all the rods, which cannot be said to be a common occurrence in vineries generally. As a rule, in other than the best-managed vineries, the larger bunches are usually found at the apex, where younger and more vigorous growth usually occurs, owing mainly, or I may say entirely, to a faulty method of pruning the Vines during the first three seasons of their growth. To obtain the best results for thirty years, the extension of the rods should be restricted considerably at first, so that a sturdy growth will be built up right from the base. Couple this common-sense method of pruning the rods with thin training yearly, so that all the main leaves especially shall have ample space to develop and mature their growth fully. Experienced Grape growers, who prefer compact bunches with huge, well-coloured berries that carry a dense bloom, prefer such to double the number of smaller, immature bunches and berries, which are usually the result of confined growth, aggravated by overcrowding of shoots and leaves. With such an example as the illustration alluded to, the inexperienced may learn much in training the Vines.—E. M.

Fairy Roses in Pots.—I am so glad to read Mr. Jacob's letter about these pretty little Roses, many of which are well worth growing; and, besides, it comes quite as an apology to me. Three or four years ago I was putting up a group of Roses at one of the early shows of the Royal Horticultural Society, just opposite to a group of Daffodils. There were some fine new varieties being shown by Mr. C. Bourne of Bletchley. Mr. Jacob was most excited about it. Down he came in a big great-coat—it was rather a cold morning—and knocked over two or three vases of Roses. I did not say a word. He did not either; he was too excited about the Daffodils. Off he went elsewhere, but not for long. Another rush down the Hall with somebody else, this time with a bloom from some other stand to compare with Bourne's, and this time he backed right on to the edge of the stage where my Roses were. I spoke, and, of course, he apologised; but it was that big great-coat of his which really was the offender. However, it is not always a sinecure to be close to a stand of new things, and there was a crowd round these Daffodils all the afternoon and "nuthin' doin'" in Roses. In a very humble way I enquired the price of one of these new wonders, and was told "Forty to fifty pounds"! This made me feel smaller than ever. Now, four years after, comes my revenge—a sweet revenge—with Mr. Jacob's nice letter about Fairy Roses. And, ah!—here the old trading instinct comes in—I almost hope that Daffodils, like Roses, are a bit cheaper!—ROSE GROWER.

Chilian Shrubs.—In his notes on Chilian shrubs Mr. E. Walters specifies *Myrtus Ugni* as one of the best of the genus. I consider *M. Luma* much to be preferred, as it is far hardier, growing freely as a standard in the open; whereas, with us, both *M. Ugni* and *M. communis* require the shelter of a wall. *Mutisia decurrens*, a remarkable and

very handsome composite climber from Chile, deserves mention. Many people have failed with it, and it has forfeited favour; but it is worth while to persevere with it, for its great orange-rayed flowers are distinct from those of any other climbing shrub. It does not dread cold, for it has grown rampantly for more than thirty years in Messrs. Cunningham and Fraser's nursery at Comely Bank, Edinburgh, and makes a fine display in the Botanic Garden not far off. The climate of Edinburgh cannot be described as genial. I think the usual cause of failure with *Mutisia* is want of shelter from burning sun and drought. It does best when planted beneath a shrub trained on a west wall, where it may run up among the branches; but the shoots and suckers, which often rise far from the main stem, should be protected from slugs and mice, both of which play havoc with them.—HERBERT MAXWELL, *Monreith*.

Rose Queen of Fragrance and Roses on Black Currants.—I have had so much and so long an experience with Mr. E. Molyneux that when he says a particular Rose is of outstanding merit I am bound to believe him. I therefore advise Rose lovers to note what he says about Rose Queen of Fragrance on page 16, issue January 8, of THE GARDEN. I have a secret to reveal about Roses which I have nursed for seventy-four years. Of course, it was never worth it, but simply reveals the peculiarity of gardeners in what may be termed the embryonic stage. I learned the simple method of changing wild Briars into beautiful Roses in 1842, by watching the methods of some garden labourers engaged in the process. I thought I could do that, and forthwith trimmed a stem, took out a bud and inserted it. When the tying was completed, one man shouted to his fellows, "Clever Jack has put in a bud, but wrong end upwards." The bud was left and grew as well as any of the others. It corrected the fault, gradually turned its point to the sun, and flourished satisfactorily. It was known afterwards as "the topsy-turvy plant." My next boyish attempt was to raise the darkest-coloured Rose in existence. I had read somewhere that Roses would grow if budded on Black Currants. I knew of a large hedge of these which had been planted generations ago against an ancient and partly tumbled down wall. I inserted several buds, some of which "took," and would have extended in due course had not the Black Currant thicket been rooted up and burned preparatory to building a brick wall in its place. Of the six Rose buds inserted in the stems of the Currants, three of them "took," and one of them produced three flower-buds. The terminal bud was preparing to open, and the two lateral buds, smaller, would no doubt have expanded, too, but for the unfortunate clearance indicated. The Rose growth was thoroughly healthy. I was so disappointed that I decided not to say a word about my boyish experiment, through fear of being "chaffed." The truth of this experiment is now told for the first time after seventy-four years!—J. WRIGHT, V.M.H.

English v. Latin Names.—I little thought that my wretched parody would lead to so much criticism. The original of Peter Bell runs:

"A Primrose by a River's brim
A yellow Primrose was to him
And it was nothing more."

So it seems we all are wrong. I plead guilty to bad metre, but the original poem is somewhat varied in its number of feet. I do not, however, agree that, in its bearing on the point in question,

the word "Dicotyledon" is suitable, as it is not the name of a specific plant. A better rendering might be:

"A Cowslip by a river's brim
Primula veris was to him."

Only someone might object that Cowslips do not, as a rule, grow by a river's brim. How will this do?

"A Kingcup by a river's brim
Caltha palustris was to him."

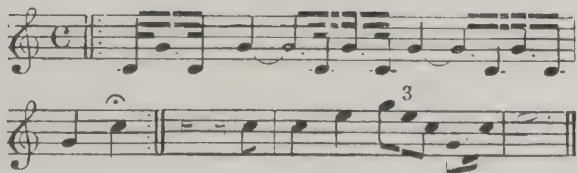
—WALTER DE H. BIRCH, *Walton-le-Dale, Lancashire.*

Pruning Pear Trees.—In THE GARDEN of January 15, "H. C." gives some directions for the winter pruning of Apple, Pear and Plum trees, but says nothing about summer pruning. Many years ago a friend of mine gave me this advice: "Break off the leaf-bearing shoots of Pear trees in the summer, leaving five leaves at the base; then in February cut with a sharp knife down to three eyes. If you do this for two or three years, the trees will no longer produce leaf shoots (or only a few) but fruiting spurs, and will require very little pruning afterwards." By following this advice I have, over and over again, brought trees that were never known to produce fruit, but only long, leafy shoots, into good fruit bearing trees. The advice was first given to my friend by a celebrated French gardener; it is easy to remember, and I have found it to be absolutely trustworthy.—G. R. JEBB.

Asarum europæum.—It is so seldom that this modest little plant is mentioned that I should like to remind other readers of its merits. There are few enough plants that are short and close growing suitable for the front edges of flower borders and, at the same time, evergreen. When one has said Megasea, Iberis, London Pride and Pinks, there are but few others, excepting the much smaller plants, such as Thrift, Stonecrops and Saxifrages, and these are out of scale with border plants and better in place in rockwork. But Asarum, with its thick, leathery, glossy leaves of Cyclamen shape, although it only rises a few inches, has a modest importance of its own that makes it suitable for accompanying larger plants. It is also admirable in dry walling, especially in a cool aspect, which, in any case, it rather prefers; and also for running by itself, when once planted, along the joints of steps and pavements, a kind of gardening where some caution is needed, for in many cases it has been much overdone. The flower is of no account as to the general aspect of the plant, though it is interesting to search for low down among the leaves.—G. JEKYLL.

Narcissus Reveille.—In the furious rush for show Daffodils, the breeding of what one may call useful garden and vase flowers has been somewhat overlooked. And one class of a "useful" Daffodil is one that prolongs the Daffodil season, either at one end or the other. But so far as the latter end of the season is concerned, I confess (with shame) that by the time May arrives I begin to grow weary with Daffodils, and so, I believe, do a good many of my friends. The flowers can never, however, be had too early, and this is where the usefulness of Réveillé comes in. It was bred from princeps (seed) and pallidus

præcox (pollen), the seed having been sown in 1904. The illustration shows the free-flowering qualities of the hybrid and its ample foliage. The flowers partake much of the character of princeps, but the colour is a delicate pale lemon, the trumpet prettily shading down to cream at the base. The plant comes into flower here earlier than princeps—in fact, almost as soon as its other parent pallidus præcox; and as a pot plant it possesses a great advantage over the latter, inasmuch as the bulbs flower with remarkable evenness and simultaneity, whereas one well knows how disappointing is a potful of pallidus præcox, the flowers as a rule coming out at all sorts of times. Folks are sometimes difficult to please when one is naming a flower, and, to satisfy certain criticisms that have been



REVEILLE, THE NEW AND APPROPRIATELY NAMED
EARLY TRUMPET DAFFODIL.

conveyed to me, I feel impelled to utter a word of protest and of explanation, which I will proceed to do in doggerel:

"It seems that people are disposed to rally
Me on my early Daffodil Réveillé.
While some would seek my enterprise to quench
By borrowing Gilbert's phrase, 'That word is French!'
The name's more *à propos* than they would think,
And need not drive them thus to gibe (or drink).
In point of fact it means *the early trumpet*,
So those who do not like the name, must lump it."

—F. HERBERT CHAPMAN, *Rye.*

Size of Potatoes.—Messrs. Dobbie and Co. of Edinburgh, in days before the war offered prizes for Potatoes. In their last competition they stated: "We do not advise sending very large specimens—tubers weighing from 8oz. to 12oz. are best." I have been told that the reason for this clause being added was that in former competitions it was not uncommon for tubers to be sent in weighing up to 2lb. each. Medium-sized flowers, as well as medium-sized vegetables, are becoming increasingly popular. The Royal Horticultural Society now provide classes for medium-sized Daffodils.—EXHIBITOR.

The Fruiting of Xanthoceras sorbifolia.—Reports from widely separated localities in the British Isles seem to indicate that the fruiting of the Chinese Chestnut (*Xanthoceras sorbifolia*) was pretty general last summer. This condition was no doubt brought about by the favourable summers of 1913 and 1914, which well ripened the wood. At Aldenham last June I saw two large plants, one being about 8 feet high, flourishing in the open air and fruiting freely, on a heavy clay soil in a locality where I am told frost occurs every month in the year. Mr. H. Clinton-Baker recently sent me ripe seeds taken from a plant in his garden, which was loaded with fruit last summer, and I am hoping to get young plants raised from them.—A. BRUCE JACKSON.

Transplanting Daffodil Bulbs with Roots.—Mr. Jacob is right, and Mr. Jenkins is right in a way, but probably has not quite taken Mr Jacob's meaning. No one would move bulbs when in growth unless obliged, for it is obvious that a check of some kind must be caused. Growth is certainly at a standstill while the bulbs are out of the ground, if it is only for five minutes. But Daffodils are singularly plucky and accommodating creatures, with a large reserve of force. It may sometimes be necessary to move them when rooted. I was once obliged to move the entire batch of one of my seedling Poeticus when rooted a full inch long. Of course, I gave up hope of good flowers for the next spring, but they were so good that a bunch was staged, and the stock sold on the spot, at a Royal Horticultural Society's Show in April. Ten days ago I dug up a boxful of a variety wanted by a friend, with roots 2 inches to 3 inches long, packed them instantly in wet moss and posted them. If he plants them at once he will have good flowers, and good bulbs to dig next summer. My old acquaintance, Canon Swayne, had a good collection of Daffodils in his lovely garden in Salisbury Cathedral Close. He told me, to my great astonishment, that he always divided and moved his clumps in full flower. He was not a grower for exhibition, but there was not much the matter with his flowers. There is no need of ingenious machines. The one thing necessary is to keep the roots wet. Dig a deepish hole with one vertical side or wall, wet the hole, then spread the roots fan-wise against the wall and pat moist earth against them tightly.—G. H. ENGLEHEART.

NOTES FROM THE RIVIERA.

BY EDWARD H. WOODALL.

Iris stylosa.—It has been remarked that Mr. Arkwright's beautiful white form does not reproduce itself from seed. For years I have collected and sown seed of this favourite variety, and have never succeeded in flowering a white form, though many fine varieties have appeared, some dark and one or two quite light grey in tone. Seedlings spring up in many places by the side of the walks in my garden, often appearing in chinks of rockwork or dwarf walling, and to my surprise one seedling, that must have been self sown in a particularly hard and dry corner, has just proved itself pure white, and apparently identical with Mr. Arkwright's plant. Has anyone else had the same experience? I wish I could

be sure it was a seedling from the white, as that would make it of greater interest. Three years ago I got from a Dutch firm bulbs of

Galanthus Fosteri, which have thriven and increased as no other Snowdrop

will replace the Northern forms so welcome at home.

Acacia baileyana.—How far has the hardiness of this elegant and free-flowering Acacia been tested in English gardens? It will be found hardier than *A. dealbata* unless I am greatly mistaken, but its winter-flowering habit is against it unless it has the power of deferring its period of flowering until spring has come. As a wall plant it certainly deserves a trial, as its slender branches lend themselves so easily towards covering a wall. In this climate it prefers more shade than other species, which is in its favour as an English garden shrub or small tree. There are two forms of this species—one with a weeping habit, which bears the longest racemes of flower; and an upright form with still more glaucous foliage and much shorter and stiffer racemes of bloom. The first variety is the prettiest and the earliest, but the second stands bad weather better when in full bloom, and is also the most vigorous.

Cypripedium fairrieianum.—

Are the imported plants of this charming little *Cypripedium* beginning to fail and lose their vigour in English greenhouses, as did the first importation years ago? It can, I think, be easily cultivated by anybody who has even the shelter of a frame in the South of England, and the reason why it dies out is that it is kept too warm

and too moist all the year round. Cultivators have found out by now how low a temperature *Cypripedium insigne* will stand when grown in a cold house and in the open air in summer; but *C. fairrieianum* enjoys even colder treatment if it gets some sun. It does not require much shade when grown cool, liking hotter days and cooler nights than *C. insigne*, and always plenty of air. There is a great variety of colouring in this species, some being almost white, while others are quite brightly coloured, the veining being so marked and so rich in tone as to make them very effective in this climate. I

notice it lasts longer in flower than *C. insigne*, as I found a flower open on my arrival on October 27, and that same flower is only just showing the first signs of fading now (January 6). Several plants of *C. insigne* are already faded and past, while no bloom was open till the first week in November. *C. leeanum* is another of extraordinary lasting power, and *C. villosum* lasts longer still when grown in the open air. It does not flower with me until February comes in.

The month of October was both cold and wet, so that many hardy plants considered it winter and took their rest. In consequence spring has begun in January, and the early Almond trees are blooming, as are also the well-known "Mimosas," *Acacia dealbata*, quite a month ahead of their usual time. On the other hand, *Salvia Bethelli*, *Montanoa bipinnatifida*, *Ageratum*

mexicanum and *Linum trigynum*, which are, as a rule, our best Christmas Day flowers, are only now beginning to flower, as they were so checked by the cold autumn weather. Fortunately for them, it is almost summer weather just now!

MERENDERA CAUCASICA.

This early flowering plant is closely allied to the Meadow Saffrons or *Colchicums*, but instead



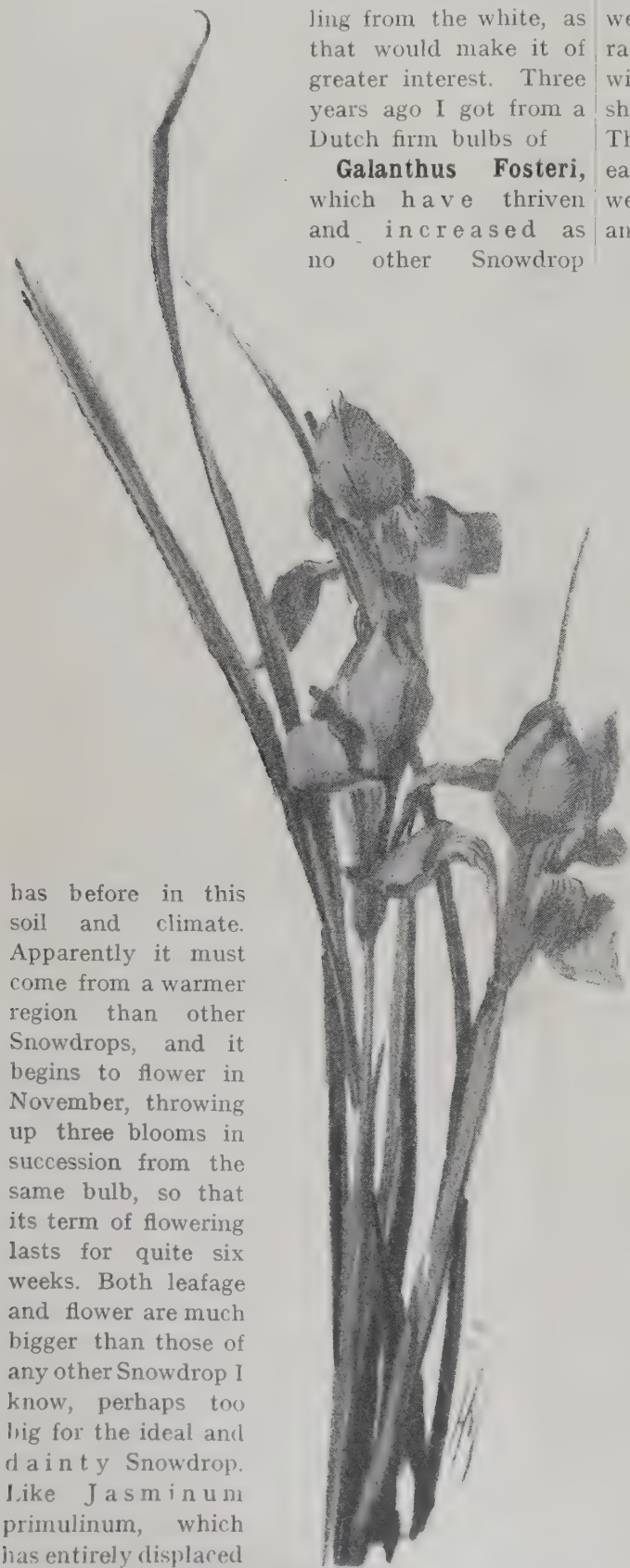
A LITTLE-KNOWN JANUARY FLOWER:
MERENDERA CAUCASICA.

of the flower tube being entire as in the latter, in *Merendera* the tube is divided to the base into segments equal in number to the divisions of the perianth. There are about four species in cultivation belonging to this family, one of which, *M. Bulbocodium*, an autumn-flowering plant with rosy lilac flowers, comes from the Pyrenees. *M. persica*, from Persia and Afghanistan, has pale lilac flowers; while *M. sobolifera*, from Asia Minor, has nearly white flowers. The latter is remarkable for its distinct corms, which creep about after the manner of Solomon's Seal. The most charming kind is the plant here illustrated, which comes into flower on a warm border late in January, and continues to produce its rosy purple flowers for a long period, in spite of wintry weather. It may also be grown in pans for the alpine house, where, with a little shelter from wind and rain, it is seen to better advantage than outdoors. It is a native of the Caucasus, and although it has been in cultivation for nearly a century, it is not common in gardens.

W. I.

MAGNOLIA GRANDIFLORA.

This is one of the finest of hardy evergreen shrubs. In the dull days of winter its large, bright leaves, rivalling those of the Laurel, are seen to advantage and when in flower the creamy white, cup-shaped blooms are always a source of great admiration. There are many varieties, but one named Goliath is worthy of special mention by virtue of its deep glossy green leaves and very large flowers.



IRIS STYLOSA, A HARDY
JANUARY FLOWER.

has before in this soil and climate. Apparently it must come from a warmer region than other Snowdrops, and it begins to flower in November, throwing up three blooms in succession from the same bulb, so that its term of flowering lasts for quite six weeks. Both leafage and flower are much bigger than those of any other Snowdrop I know, perhaps too big for the ideal and dainty Snowdrop. Like *Jasminum primulinum*, which has entirely displaced *J. nudiflorum* on this coast, this Snowdrop

SUCCESSFUL DAFFODIL CROSSES.

BY THE REV. G. H. ENGLEHEART, V.M.H.

I AM asking for a little more space in THE GARDEN, not only because the editor of the "Daffodil Year Book" has taken the somewhat unusual course of reviewing the reviewer invited by himself to review his yearly review, nor only in reply to "Novice's" painstaking answer of January 8. The subject itself merits fuller discussion. Perhaps I had better first take up Mr. Jacob's direct challenge. I had demurred to the application of the word "successful" to crosses existing only in seed, and perhaps not even in the seed. Mr. Jacob asks: "Suppose a person carefully depollinates the flowers long before the anthers burst, and then brings pollen from elsewhere, and having placed some of it on the stigma of the afore-said flowers, then gets seed, what word should be used to describe that operation?" Well now, when I read this poser I fell to wondering whether Mr. Jacob had not mistaken his vocation and ought not to have been a lawyer. The legal wording of his question reminds me of a clause in a will or a conveyance, and is evidently drawn up so as to leave me no way out. And yet my answer is easy. I should not use any word at all "to describe that operation." Indeed, I should imitate a more wary person than Mr. Jacob, namely, "Brer Rabbit," and should "keep on sayin' nuffin" for at least four or five years after the operation. Possibly I should be silent even then, when I surveyed the usually depressing results of such operations. The word "operation," by the way, and Mr. Jacob's way of viewing seed rather remind me of doctors, who invariably call their operations "successful" without regard to the future.

At this point I must tell Mr. Jacob a story. It is a rude little story, but the rudeness is not mine, and I tell it to show that my expression "absurd" is not so rude as other words which people have said of the same thing. A youthful hybridist came one day to a lady friend of mine of mature age and much experience in both horticulture and mankind, and imparted the open secret that he had just been making a number of Daffodil crosses "and could not sleep at night for thinking of the splendid flowers he had created." I am sure the lady answered him politely, but in her report of the interview she named a useful animal which is one of the parents of the mule

and is not a horse. It is my earnest desire to conduct this little debate with decorum, but there is, to my mind, a certain absurdity in counting your chickens before they are hatched. And this is, after all, what Messrs. Jacob and Co. are doing, when we come to the kernel of the whole matter. Their seed is an undeveloped and unknown quantity. They are prophesying before they know, which is said to be a proof of un-wisdom. Parenthetically, I desire to be again clear on one point. No possible reflection is implied on Dr. Lower or his words. He manipulated certain flowers and reported the results by request. But—and I lay great stress on this point—Mr. Jacob published that report *urbi et orbi* (I venture to correct "Novice's" order of the words), that is to the Daffodil world as reached by the Year Book, thus lifting it quite beyond

They are the very best ingredients. We have never mixed them before; we have no experience of the results of the mixture. But the mixture is successful." I say Mr. Jacob would be entitled to call my statement an absurdity. The case of the Daffodil seed is worse, for we do not even know that the intended mixture has taken place at all. Neither Mr. Jacob nor "Novice" can deny that the intrusion of unseen and undesirable ingredients into their cross or mixture is possible. There lurks in both pollen and ovule the possibility of a reversion, often violent and upsetting, to a complexity of ancestral characters. There is the insect danger and the danger of self fertilisation. During a high and dry wind, if the flowers are almost in contact, there is something of danger from wind fertilisation. As to this last, however, I may answer "Novice" that, to the best of my



A SPRAY OF THE BEAUTIFUL MAGNOLIA GRANDIFLORA.

the scope and intention of Dr. Lower's personal notes. Here Mr. Jacob seems to be suffering from some confusion of thought, confusing seed and flowers. The aim of the Year Book, so far as it is a teaching publication, is to help its readers to raise good flowers, not to produce seed only. The production of seed takes us only a little way on the road, and if the seed is the result of merely crossing every good flower with every other good flower, apart from experience, it is likely to lead by a variety of wrong roads into the wilderness.

Let me adduce another homely proverb, "The proof of the pudding is in the eating." Suppose I were entertaining Mr. Jacob and announced to him, "I have an excellent pudding; you will be unable to taste it; it will not come to table for years. But my cook has mixed the ingredients

belief, Daffodils are seldom wind fertilised. The construction of their organs does not resemble that of flowers designed to be fertilised in that way. This fact discounts much of what "Novice" writes about the dangers of large areas exposed to wind. The insect danger, on the contrary, is much greater than he supposes. Minute beetles, in particular, frequent the flowers by night as well as by day, and in both sun and shade. "Novice" is inclined to jest at my belief that some Narcissi "manage to fertilise themselves in a remarkable way, despite the most careful depollination." "He jests at scars who never felt a wound." This belief—but, indeed, I may call it knowledge—has been forced upon me by over a quarter of a century's careful handling of Poeticus and the hybrids nearest to it. "Novice" is either ill-named or has most of his experience to come,

Not only I, but more than one of the longest and most successful modern workers have learned that, to avoid all possibility of self fertilisation, the green bud must be opened so early that the exposure of the organs "shocks" the flower and induces sterility. If the operation is delayed long enough to avoid this danger, another is incurred, namely, that of minute bits of unripe anther causing self-fertilisation. The extraordinarily accurate observer Müller noticed long ago this remarkably protogynous disposition of *Narcissus Poeticus*.

"Novice" again misrepresents my arguments. He now says my mistake is "to too hastily assume that conclusions rightly drawn from experience at Dinton must be necessarily applicable to all other gardens, irrespective of totally different conditions." Why, one of my main contentions against the publication of that list of "successful" crosses has been the precise opposite, viz., that almost every garden is peculiar in its conditions, and that it is fruitless to argue from one to the other or from any one to all. As to the likelihood of my "thinking myself to be right all along the line," I leave that to my first paragraph of December 18 last and to those who know my mind better than "Novice" can.

To make this matter a little more practical, let us bring it to our national test of £ s. d. Suppose that Messrs. Jacob and Co., while they are waiting for the flowers, were to carry their "successful" seed to market, say, gummed on to cards, ticketed with its respective parentage, and exhibited at a Royal Horticultural Society's Daffodil seed show, would it fetch any appreciable price? And if not, why not? The answer is that it would not sell, because it could not be guaranteed to produce flowers of any value. If any seed could have a marketable value, it would be seed from a parentage already registered as productive of fine flowers under the test of time and varying conditions. Even then the trade would be a crazy one, and I do not think the public will muster at a Daffodil seed show.

I have had many letters on this subject. One correspondent aptly instances the analogy of racehorses. It is as difficult to breed a good Daffodil as a good racehorse. Horses are safer from external interference than flowers. But what breeder would call an unborn foal "successful"? And how many owners would buy an unborn foal simply because it was the offspring of two fine-looking animals? A strain of uniform excellence of descent, a sire already tested as to progeny—such conditions might give a hypothetical value to a foal unborn. But has anyone at any time called it "successful" while yet unborn; or, if he did, would not his acquaintance be apt to call him "absurd"?

EXTRACTS FROM LAST YEAR'S NOTEBOOKS.

BY THE REV. JOSEPH JACOB.

WITHIN the last two years force of circumstances has compelled me to acquire the notebook habit at flower shows and in my friends' and acquaintances' gardens. Now, a really well-kept notebook is



THE ROYAL LILY (*LILIAM REGALE*). IT IS HARDY AND EASILY GROWN.

like charity in its objective and subjective power of blessing, and even a mediocre one has a certain family likeness.

"Comparing notes" is always a pleasant occupation, either for the young ladies of the house-party after a ball or for the more prosaic meetings of gardening friends. Thus, just as in a somewhat parallel case, "it is the very fact that throughout the garden there is a suggestion of man's thought and handiwork, veiled it may be by the delicious mystery of Nature, that gives the garden its especial charm," so here in these communings

it is the personal element involved that creates their interest and fascination. We like to know what others think; "hence the Pyramids," that is to say, these present extracts from my last year's notebooks of plants that "found" me, or, in parliamentary language—not perhaps entirely so metaphorical as it might seem—of plants that caught the Speaker's eye. In my impartiality I hope I may claim that I follow that dignified official's great example, for neither colour-schemes nor drawing-rooms influence in the least my likes and dislikes; nor have I the strong antipathies and sympathies for this or that particular genus, species or type that we see in the case of Mr. William Robinson and "verdant sculpture," and, in former days, of Capability Brown and "clumps." This will account for the strange bedfellows that will occupy the remainder of this article. Their order is like that of a dear old farmer in my parish, one Joseph Hinton, now long since dead, who once gave me a list of his losses since he had been at his farm: "Three horses, about a score of pigs, two carts, two wives, six cows, near thirty turkeys, one mare and nineteen sheep." There is no order. They are just jotted down anyhow.

Nerine Rotherside.—Quite one of the best of these coming bulbous plants. Pale coral in colour, free flowering and a good increaser.

Sweet Pea Royal Purple.—This fine new Sweet Pea first took my fancy when it appeared at the "National" Show in the seedling novelty class. It is a rich bright purple of a singularly pleasing shade, which leans to the red side rather than the blue. Equally good for garden decoration and for cutting.

Iris sibirica Perry's Blue.—Considering the ease with which these Irises seed, it is surprising that more varieties are not on the market. This one is a real beauty, of the sort of blue that I seem to associate with Delft ware.

Lilium regale (syn. myriophyllum).—The magnificent vases of this grand new Lily from Miss Willmott's garden, staged at Chelsea, undoubtedly appealed to many. A mass of it 7 feet high, as there is at Warley Place, must be a great sight. It is hardy and easy to manage if it is remembered that it does not like peat. It may be described as a mixture of *L. candidum* and *L. longiflorum* in shape, with brown and rose markings and flushings on the exterior of the flowers, recalling the handsome and more difficult *L. Brownii*, blushing to hear its praises sung.

Tritonia Prince of Orange.—Lilley of Guernsey had two or three vases of this at Chelsea. The colour is a warm rich orange, not unlike, in its



NERINE ROTHERSIDE, A BEAUTIFUL AND STRONG-GROWING VARIETY THAT IS DESTINED TO BECOME A GREAT FAVOURITE.

general appearance, the old crocata, but possessing one feature which makes it outstanding, viz., its flowers remain open in dull weather.

Philadelphus Virginale.—I saw this on several occasions, and each time I was charmed with it. The long sprays of sweet-scented, double white flowers (something like glorified Scotch Roses in shape) are very beautiful. As a rule, I am not nearly so keen about double flowers as I am about single ones; but this is one of the exceptions, like the big double Blue Flag (syn. Blue Celeste) among Tulips.

Crocus E. A. Bowles.—I was going to say Mr. Bowles is a lucky man to have such a gem "of purest ray serene" called after him; but what would be all right to be said of the lesser folk is

Meconopsis heterophylla is a pretty orange red Poppy with the bases of the petals marked with a dark blotch. A very well grown example will be about 18 inches high, but as a rule a foot would be nearer the mark. It is distinguished by being the only one of the genus to come from the New World. In warm soils it may be treated as a biennial, but it is safer to count it an annual. At present it is not much known.

(To be continued.)

THE SNOWDROP.

My first Snowdrop for the year drooped its head about January 9, and very welcome it was. It is

NOTES ON AURICULAS.

WITH a prolonged spell of April temperatures in December and the early part of this month, there have been evidences in all directions of precocious growth. This has been particularly noticeable among the Auriculas, which, by reason of their strong root action in autumn and throughout mild winters, are ever ready to respond to suitable environment and spread their leaves to the coming spring. I remember once, chatting about Auriculas with the late Mr. Douglas at Edenside, he asked if I had ever noticed what



A SPRINKLING OF SNOWDROPS ON A GRASSY BANK.

rather inappropriate when the greater lights of the firmament are in question. He doubtless will see many more beautiful flowers bearing his name; but will any be more lovely than this? Pale newly hatched chicken yellow is not a bad description of its colour, only it would give, if we were to be quite literal in our comparisons, one more content to the basket of salmon, butter, canary bird, sealing wax, gentian bloom, sage, unripe apple and all those many things which we seem bound to use to convey to one another the tone or shade of this flower or that fruit. E. A. Bowles resembles a species; that is to say, it is after the style of biflorus, susianus or Sieberi, rather than the more solid Victorian type of purpurea grandiflora, Catherine Parlow or Mont Blanc.

Galanthus cilicicus, which should bloom in November or December, but has tarried on the way, doubtless owing to the spell of frost and cold we had for a considerable time. Snowdrops in this district are not so early as I have seen them, and even at St. Mary's Isle, Kirkcudbright—a favoured place as regards climate and shelter—only a mere sprinkling of Snowdrops were open at the end of the first week of January, out of the millions which are there.

In that demesne they often come into bloom in December, and are in full array in January. *Galanthus cilicicus* is precious to those who have late gardens as well as to those who have early places where it will bloom in its proper season.

Dumfries.

S. ARNOTT.

a wonderful change came over the plants about the third week in February. As a rule it is the latter part of that month which witnesses the gradual unfolding of the packed-up crown of leaves, showing the flower truss nestling down at the base like a bunch of tiny pin heads. But this year, even now that resurrection of activity has taken place in some of the plants, giving promise of an early season of bloom. Luckily for exhibitors, however, who sometimes find difficulty in timing their flowers to a certain week at the end of April or the beginning of May, the advent of colder weather has no worse effect than to arrest progress, and this cold spell is pretty sure to arrive during January or February, or, perhaps more often, during both months. By the time March comes round, the trusses will be well advanced in



SIDE SHOOT OF THE GOOSEBERRY, SHOWING MODE OF GROWTH AND FRUITING.

their initial stages, but they develop very slowly indeed, and the second half of April invariably sees the time of full flower harvest, which, however, lasts for over a fortnight, and many excellent blooms may be had right through April and May.

At the present time the chief concern is to keep the plants moderately dry at the roots and to supply abundant ventilation.

This latter point is most

important and can hardly be overdone. During very hard frost, plants in frames can be protected sufficiently by mats thrown over the lights, but even then I would advocate a free flow of air. If the pots are sunk in ashes, the frost will do no harm, provided sunshine is kept from the frozen leaves, and thus, during a short spell of frost, the mats may be left on all the time, with the sashes open about a couple of inches at the sides. In the Auricula house there should be ventilation by gratings under the staging, and my own experience is that these need never be closed. During frost the top ventilators can be shut down, as the warmest air will always drift towards the roof; but the side windows facing south or west, if there are any such, can still be open with advantage. In my own case my house faces east, being a lean-to on a wall, the inner side of which is adjacent to the kitchen fireplace. It is just possible to detect the slightest warmth on part of that wall, yet it is sufficient to keep out all casual night frosts, and the lowest reading of the thermometer in four years is 27°, and that immediately under the glass at the furthest point from the source of warmth emanating from the wall. Curiously enough, that low record was attained last November, and with open ventilators all round; prior to that, no more than 3° of frost had been registered in the house.

I have said that plants must be kept moderately dry at the roots, but a word of warning should be given against erring on the side of extreme dryness. The very act of trying to keep them fairly dry encourages the soil to contract, and frequently this leaves an opening down the sides of the pots through which the water runs, leaving the ball of soil unmoistened. The mischief is not always noticed until perhaps several ineffectual waterings have left the roots so parched that the leaves begin to flag. In ordinary open weather during January and early February thorough watering once a week is enough. This

can be modified slightly either way according to whether the air is stagnant and moist, or a drying wind prevails. Seedlings potted up in 2½-inch pots will, of course, need special attention, as they dry out more quickly. During frost no water need be given, but the plants should be carefully gone over when the thaw comes. The beginning of a vigorous top growth will coincide with a more abundant supply of water.

J. L. GIBSON.

PRUNING BUSH FRUITS.

THERE is nothing new to say concerning the pruning of bush fruits, but a few simple directions may prove helpful to those who are taking the work in hand this winter for the first time. By the term "bush fruits" is meant Red and White Currants, Gooseberries, Raspberries and Black Currants. In the case of Gooseberries, the work will perhaps



GOOSEBERRY BUSH READY TO BE SPUR-PRUNED AT THE PLACES INDICATED BY THE DARK LINES.

be more easily accomplished with a good pair of secateurs, otherwise all that has been said in a previous article on the importance of a strong, sharp pruning-knife applies to the pruning of bush fruits quite as forcibly as to the pruning of Apples, Pears or Plums.

Red and White Currants.—If we examine a bush of either of these fruits, we shall see a number of last year's shoots arising from the older branches. The fruits are borne at the base of these young growths, which should be shortened to about 2 inches in length. In principle this operation is similar to spur pruning in the case of Apples and Pears. Shortening the side shoots increases the formation of clusters of fruit-buds; the fruit growers of Kent refer to them as ring buds an appropriate term, although not in general use. While the side shoots are pruned somewhat severely, it is not wise to shorten the leading or terminal growths to the same extent, but they may often be reduced to about half their length with advantage.

Gooseberries.—These are the most formidable of all the bush fruits, but they may be pruned on the same principle as the Red Currant. But

the Gooseberry will also fruit along the whole length of the young wood, providing it has been well ripened. This has given rise to two methods of pruning. One is to spur prune, and the other to cut away old wood, leaving as much young wood as possible. Either method will give satisfactory results, and the chief point is to prevent the overcrowding of branches, for no bush fruit is more inclined to produce a thicket of growth, which means a poor crop of inferior fruit. It is a great help towards keeping the bushes free from basal growth to grow them on a single stem, not allowing them to branch until they are 2 inches or 3 inches above the ground-level. The bushes are kept open in the centres by removing all ingrowing and crowded growths. Both Gooseberries and Red Currants are well adapted for training either as cordons or after the shape of the gridiron, and when so trained and spur pruned they are splendid for low walls and fences. For my own part I always leave the pruning of Gooseberries until the buds have commenced to grow, for birds play havoc with the buds, and on severely pruned trees they have an unhappy way of taking most of the remaining buds.

Raspberries.—There can be no doubt about pruning the Raspberry, for it produces its fruit on the canes made the previous year, and the old canes should be cut clean out to the base. But the pruning of the Raspberry is best done soon after the fruit has been gathered, in order to give the young canes a better chance to develop and ripen, for it is to these that we have to look for next season's crop of fruit. If the pruning has not already been done, it should be completed without further delay. The old canes are readily distinguished from the new by their size and colour; moreover, the chances are that the old canes are dead, for they often die back as the young canes push up their vigorous growths. The young canes should be



A BRANCH OF THE RED CURRANT, SHOWING THE MANNER OF FRUITING AT THE BASE OF THE SIDE GROWTH.

pruned to about half their length before growth commences in the spring.

Black Currants.—Like the Raspberry, the Black Currant fruits upon the young growth. Therefore the aim in pruning is to retain all the young wood possible and to cut away the old wood. The Black Currant often sends up strong growths from the base, and these should be left unpruned. A very good plan is carried out in some gardens of cutting the old wood right down to the bottom of the tree every second year. This plan, however, is applied to alternate trees, so that there is less risk of a serious shortage of fruit in any one year. The big-bud disease is rampant this year, especially in the Midland Counties. Very severe pruning and hand picking the diseased buds are means by which the ravages of this pest may be checked. All prunings and buds must, of course, be burnt immediately. H. C.

FLAVOUR IN APPLES.

BY EDWARD A. BUNYARD, F.L.S.

A WELL-KNOWN firm of tobacco-conists aver that "the best cigar is the one you like best." The same may be said of many other things, Apples included. When I hear that Cox's Orange Pippin is "the best" Apple and the only one that the connoisseur can seriously consider, I am reminded of those musical enthusiasts to whom the sweet fluency of Mendelssohn is of more value than the united works of all other composers; or of those students of modern literature who think—. But it is perhaps wisest to stop at the classics who bring no libel actions.

Taste in Apples may be as diverse as in champagne, and if "brut" is your choice, it is hopeless to argue with the "gout Americain." To elevate Cox's Orange Pippin to the summit of all Apple flavours is to misrepresent the whole question. In its own line it is unapproachable, as was Mendelssohn; but there are the Bachs and Beethovens of the Apple world to whom attention may profitably be given. A great handicap in discussing this subject is the inadequacy of language. If we speak of "high" flavour, one's thoughts fly naturally to wild duck or grouse, and yet "fine," "excellent" or "good" seem chilly and unconvincing adjectives.

Perhaps the best way to solve this difficulty is to attempt to group together fruits of like flavours, and thus establish types, hoping that some representatives may be recognised and awaken memories in the reader's mind.

As is fitting, the first place should be given to the Reinettes, those aristocrats of the Apple world. Of these, Ribston Pippin is a good exemplar, though rather on the sweet side of the scale. On the "dry" side, using the word in its champagne sense, would be found Reinette du Canada, Blenheim Orange and Adam's Pearmain; while in the middle stands Orleans Reinette, in my opinion the finest of its class. This *fruit d'élite* has been

known in this country for some few years as Winter Ribston, a descriptive name which must now give way to its rightful title, which so happily commemorates that city of gardens.

There are many Apples classed as Reinettes which do not, in my opinion, really possess the typical Reinette flavour. Such, for example, is King of the Pippins, which with its slight tannin flavour stands in a class by itself; and Cox's Orange Pippin is not really a typical Reinette. The Cox's group is select indeed. Margil must be placed very near, and is perhaps even more "musked" in flavour; and for the third and last, a strange companion is found in the green and lumbering Roundway Magnum Bonum, to all appearance a *bourgeois* among the *élite*, but in flavour quite worthy of so distinguished

These fruits, so reminiscent of Georgian days, unhappily have been pushed a little into the background in recent years. For garden purposes they are quite ideal by reason of their moderate growth and dainty habit; and to those of riper years whose dental powers owe less to Nature than to Art, they will, by reason of their mellow flesh, be especially cherished.

Another group might be made of those Apples whose clean freshness is so welcome in warmer days, and might be called the Quarrenden group. To continue the vinous analogy, if we represent Cox's Orange Pippin by sweet champagne, this class suggests hock. Devonshire Quarrenden, Yellow Ingestre and the Old Golden Pippin would come within this group. A very distinct and curious flavour is that usually called "balsamic,"

"strawberry" or "raspberry." It seems to be mainly confined to the so-called Russian Apples or their descendants. A few names occur readily under this heading: Cellini, Ben's Red, Gascoyne's Scarlet and Transparent de Croncels. This peculiar flavour has some admirers, and bears some resemblance to so-called foxy Grapes, about which argument is idle. People who like this kind of thing will like these very much, especially Cellini.

For the possessor of a merely sweet tooth Cardinal can be recommended, as it is probably the sweetest Apple grown, and before which even Worcester Pearmain pales its ineffectual saccharine. Mrs. Phillimore will make a very close second in this respect. The most austere palates, however, may gain pleasure from a tree of Cardinal in their gardens, for as a thing of beauty it is a joy for several weeks in August and September.

For those who prefer their Apples on the "brisk" or acid side, Belle de Boskoop can be thoroughly recommended. This excellent fruit, so largely grown in Holland, is not yet duly appreciated in this country. There are few fruits which preserve their freshness in the month of April, and it is difficult to think of others to group with it.

Other fruits which stand alone in flavour are Gravenstein, one of the most distinct of Apples, and the delicious Pine-apple Russet, whose Pine-like scent can be detected even in

the crowded fruit-room, and its flavour does not belie its name.

Quite easily might this list be extended, but its purpose will be served if it has been shown that Apple flavour is varied, even as the scents of flowers, and it would be as vain to search for a "best" to be accepted by all in one as in the other.

A GOOD TOMATO: WEBB'S REGINA.

The true value of any variety of Tomato cannot be accurately formed either by the number of fruits the bunches carry or the number of these bunches on a specially grown plant. Weight of crop, size and flavour, together with shape and good keeping properties of the fruits, are points



TOMATO WEBB'S REGINA, AN EXCELLENT CROPPER EITHER UNDER GLASS OR IN THE OPEN.

a place. The flavour of the Cox's group appeals to all, but there is but little subtlety in its scented sweetness; and disregarding heretical penalties, I boldly declare my preference for the more finely balanced flavour of an Orleans Reinette or a Claygate Pearmain. May I express in parentheses a hope that no one will this year ask me to justify my taste by sending them a fruit of these two Apples. Sad skies and sodden ground remind us that these queenly fruits ask for warm soils and sunshine. This year they are but shadows of their real selves.

Another group might be made of the Nonpareils, whose distinctive flavour is exemplified in the Old Nonpareil, Ross' Nonpareil and many of the Russets. Might it be suggested that their flavour is a little *greenish*?

which no one can afford to lightly pass over when making a selection, and I may add to this something which to many readers of *THE GARDEN* is of even greater importance—the adaptability of the variety to any form of cultivation. Those readers who, like myself, have a leaning towards experimenting with many, in preference to that of limiting attention to a single variety, will agree that some varieties, although most dependable for growing in a greenhouse, often fail to satisfy the grower who has to depend on plants grown in the open air for his crop of ripe fruit; while with other varieties the case is just the reverse. In the variety illustrated we have one which, no matter where I have grown it, has never failed to give complete satisfaction, being what gardeners term “a good doer,” in pots, on stages or in the open garden.

The illustration shows a row of plants growing against a low wall, many of the bunches carrying over a dozen fruits. These are well above the average size, and keep a long time in perfect condition after being picked. If a little thinning out is done as soon as the most perfect fruits can be selected, the exhibitor will find Webb's Regina well suited for his purpose. F. R. CASTLE.

NOTES ON VEGETABLES.

Onions.—Those who intend to grow large bulbs for exhibition or home use—and they are valuable for the latter purpose, in spite of the idea sometimes put forward that they will not keep sufficiently long to warrant the extra time and pains required in producing them—should sow seeds at once in pans or boxes of fairly rich soil, so as to ensure a long season of steady growth. The soil should be moist, or if there is any doubt about this, prepare the receptacles, water freely, sow the seed the next day thinly, and place in a temperature of 50° to 60°. Directly the plants show through the soil, place them in a position near the glass in the same temperature to prevent the plants being drawn up weakly. If this latter occurs, no after attention can remedy it, which is all against success. No variety can equal a true type of Ailsa Craig, which possesses weight and shape and, with due care in culture, matures perfectly in August.

Carrots.—To give early roots, a sowing of any of the Short Horn varieties should be made in a shallow frame on a gentle bottom-heat. As the plants progress, give air freely and begin to pull the roots early. These will be useful for flavouring, and provide extra space for those remaining to grow larger.

Broad Beans.—Make a sowing of Windsor and Early Longpod in large pots to give a crop in May and early June. Five seeds in a 10-inch pot will be ample. Three parts fill the pots with rich soil, the space to be afterwards filled with half-decayed horse-manure as a mulch to encourage surface roots. Stand the pots in a vinery or Peach-house just started, or even in a greenhouse, where the plants will have ample light to grow sturdily afterwards.

Leeks.—A sowing in pots or pans for the earliest crop can now be made, giving the plants cool treatment.

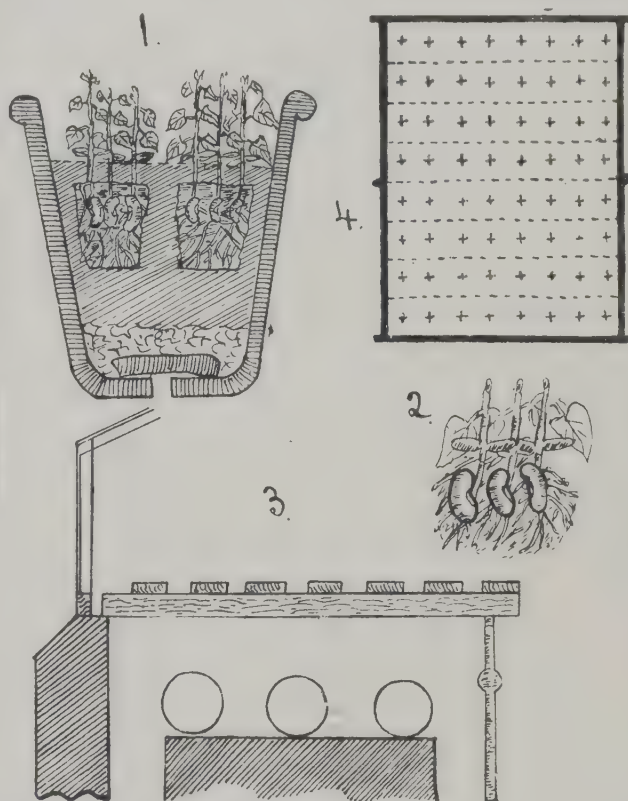
Radishes, wherever space exists, should be sown in frames on a gentle bottom-heat among Carrots, Lettuce, Marrows or Potatoes, choosing varieties of the French Breakfast type. Nothing but ill

results are gained by sowing the seed too thickly; the plants quickly become attenuated, and in this way never gain even a reasonable size.

Potatoes.—Early varieties, like May Queen, Duke of York and Dunnottar Castle, for planting in frames or large pots should be stood on end to sprout in some light, frost-proof shed or cool house. Do not allow more than two shoots to grow on each tuber, as a greater number have not space to grow sturdily, which is the all-important point, especially in early Potato crops.

Seakale.—Continue to add fresh roots to the forcing-house to keep up a regular supply of succulent Seakale. If the stock is short but consists of strong roots, they will produce secondary crops if encouraged to grow after clearing the first crowns, which should not be cut too low. Sprinkling with warm water twice daily and covering them with freshly gathered leaves will induce a quick growth.

Rhubarb.—The early varieties out of doors are now pushing into growth. To accelerate the



FORCING FRENCH BEANS.

1. French Beans rooted in small pots and potted into a larger one. 2. French Beans rooted in clumps of three in boxes, to be transferred to pots. 3. A suitable staging for forcing Beans in pots. 4. Crosses represent Beans sown in a frame with rows of Radishes (dotted lines) between.

supply, cover the roots with Seakale pots, tubs or boxes, covering with long, strawy manure to exclude light but not air, as the latter improves the flavour of the Rhubarb when not induced to grow too rapidly by strong heat from hot manure.

Peas.—Sowings in large pots for use in May and early June should be made at once of such sorts as Early Giant, Duke of Albany and Edwin Beckett. Six seeds should be placed in a 10-inch pot in a cool house, giving the plants a light position directly they are above the soil to induce a sturdy growth.

Lettuce.—Make a sowing in boxes for a May supply, or, if more are required, a slight hotbed may be used. Such sorts as Favourite, Golden Ball, Marvel and All the Year Round are desirable. Plants in cold frames require constant attention

to the removal of decaying leaves, stirring of the soil and giving abundant supplies of air.

Beetroot.—Where extra early roots are required, now is a good time to sow such sorts as Globe and Chilian on a gentle hotbed.

Aubergines.—Seeds should now be sown in fairly rich soil in a pan in a temperature of from 50° to 60°, afterwards potting the seedlings separately in 2½-inch pots. In this way success is assured with Egg Plants; otherwise, when sowing is deferred too late, success is not so easily achieved, as a long season of growth is necessary to develop the fruit. Early Long and Dwarf Purple are the best sorts for culinary use; but, if ornament is mainly desired, as pot plants the white-fruited variety is desirable.

Swanmore.

E. MOLYNEUX.

THE GREENHOUSE FOR FOOD SUPPLY.

BY WILLIAM F. ROWLES.

Growing French Beans Under Glass.

French Beans are probably the most profitable outdoor vegetable that can be grown under glass. Their sojourn with us from outdoor culture is all too short, but with the aid of glass and sufficient heat we may have them practically throughout the year. They bear forcing better than most vegetables, and rarely fail to yield good results. There is, of course, no need to force them while we can get them outside at much less expense, but we may commence in August and maintain, if we wish, an uninterrupted succession by sowing about once a month. In the early spring we may increase our sowings to once a fortnight, and easily keep up a supply till Beans are available outside. As the late sowing of these Beans outside in late July and August will only yield a crop if the weather is open or if we take the trouble to protect them, it is advised to make a sowing in a cold pit or frame in August. There will be a depth of soil of about 8 inches standing on a few inches of leaves or rotted manure. The seeds are planted in groups of two or three at a distance of 9 inches apart in rows a foot apart. We may utilise the increased distance between the rows for sowing lines of Radishes, which will mature before the Beans are sufficiently high to smother them. This autumn sowing needs very little attention, for, after watering, the lights are merely kept on until the seeds germinate, and afterwards only on cold nights or to protect the plants from heavy rains. Plants from this sowing will need no support. As winter advances, other sowings will need more heat than can be given in a cold frame, so if there is not a heated pit available, we must be content to grow them in pots.

There are several differences among growers as to the details of management, and rather than argue these out to no useful purpose I will tell readers how I myself grow them with satisfactory results. I use 4-inch pots with a few leaves at the bottom and filled with sandy soil, and sow five Beans in each pot, covering them with an inch of soil. These are watered through a rose and put into a temperature of 60°, where they quickly appear again. As soon as they are above the soil they are brought to the light and stood close to the glass, and from that time until they have fruited they receive at least two syringings a day,

When 4 inches or 5 inches high they are transferred to 9-inch pots. I pull out the backward Beans and, clumping two of the balls together in a large pot (now free from Chrysanthemums) and duly drained, I fill up with sandy soil. Space for top-dressing is not left, as I see no difference in the behaviour of plants so treated. Shortly afterwards twiggy sticks of Birch or Hazel are set to keep them upright, and when the plants commence fruiting they are treated to a dressing of Le Fruitier and weak waterings of liquid cow-manure. As the plants advance in growth, more room is afforded them, but in order to make the best use of space I like to keep the leaves just touching. Unless we assiduously and forcibly syringe them and keep a moist atmosphere in the house, we are going to be troubled with that horrid pest, red spider. With this point of good culture followed, we need not discuss the elimination of red spider. Syringing need not be stopped even when the Beans are flowering. Old plants are removed as soon as they fail to produce Beans.

SILENE ASTERIAS GRANDIFLORA.

VERY conflicting statements regarding this little-known plant have reached this office, of which we select those given below.

A propos the note on the above by Mr. E. A. Bowles (page 14, issue January 8), this *Silene* seems to thrive out of doors at Waltham Cross. An authority tells me that it cannot be regarded as hardy. "In the North or in any cold districts," he says, "this plant will grow all right during the summer, but it invariably dies in the winter." Some reader who has it should send a photograph for publication in *THE GARDEN* when the plant is in bloom. We should all be interested.

Ecclesall.

E. T. ELLIS.

I can in the main endorse all that has been said by Mr. E. A. Bowles (page 14, issue January 8) regarding *Silene Asterias grandiflora*, which I obtained from the same source, in the form of seeds, from Messrs. Thompson and Morgan, Ipswich. Its life, however, does exceed three years in certain positions, and I have had plants here for a considerable number of years—nine or ten at least. It seeds very freely, and young plants appear in plenty about the parents. Here it flowers freely and gives me many heads of bright crimson flowers.

S. ARNOTT.

Sunnymead, Maxwelltown, Dumfries.

In reference to enquiry respecting the above plant, it may interest your correspondent to know that the flowers feature those of the Scabious, growing 18 inches high, colour carmine scarlet, the plant being quite easy to establish and not at all particular as to soil or surroundings.

GEORGE J. LOVELOCK.

The following may be of use to your correspondent: "*Silene Asterias*, Griseb. Spicil. Fl. Rumel., I., 168—*Banatus*." "Kew Index," Vol. IV., under *Silene*. *Banatus*, I take it, is the Latinised form of *Banat*, part of Southern Hungary between the Maros and the Danube, according to Johnson's Gazetteer. There is a copy of Grisebach's work in the Library of the Royal Horticultural Society.

W. H. B. FLETCHER.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Kitchen Garden.

Leeks and Shallots.—A small quantity of Leek seed may be sown in a box and placed in a warm house. When germination has taken place and the seedlings are well above the soil they should be gradually inured to cooler surroundings. The plants from this batch will furnish an early supply, and for exhibition if needed. Shallots must be planted in drills a foot apart directly the soil is suitable.

Early Peas.—Much will depend upon the district and the condition of the ground in regard to early Peas, but the first opportunity should be taken to make a sowing of Early Giant, Gradus, or The Pilot. Select a warm border if possible, or the driest and warmest part of the garden.

The Flower Garden.

Dahlias.—If it is desired to increase the stock of any particular kind, the tubers should be placed in an average temperature of 60°, where sturdy cuttings will soon be produced. When a few inches in length, they should be severed with a sharp knife and placed in pots of sandy soil. If put in the propagating-case they readily form roots. Pot on as required, and gradually harden off in readiness for planting out in the borders in May.

Plants for Subtropical Bedding.—Seeds of the following may be sown and grown on without any check: *Ricinus communis*, *R. sanguineus* (Castor-oil Plants), *Zea japonica variegata*, *Z. j. gigantea* (Maize), *Amaranthus caudatus*, *Cannas*, *Solanum Pyracanthum*, *Centaurea candidissima*, *Melanthus major* and *Nicotiana sylvestris*.

Fruit Under Glass.

The Orchard-House.—The trees in this house should be brought on gradually, because if excessive fire is used during the early stages, the results are not so satisfactory. A temperature of 50° at night will suffice for the present, and the floors and walls may be sprinkled with water to promote a genial, moist atmosphere.

Cherries.—These are sometimes grown in unheated cases on a west wall, and if given attention some excellent fruit is procured. Now is a good time to plant, and the following are recommended: Early Rivers, Frogmore Early Bigarreau, Black Tartarian and Emperor Francis. Double or triple cordons may be chosen, and during the first year grow the trees naturally, while all the fruit should be removed.

Plants Under Glass.

Caladiums.—An early batch may be placed in a warm house or in a vinery that is just started. The tubers should be shaken out of their old soil and the large-leaved kinds be potted singly, but several of the small varieties should be placed in one receptacle. The soil for starting the tubers should be two parts leaf-mould and one part sharp sand. Do not press the compost very hard, and the crowns of the tubers ought not to be covered. Keep the syringe employed between the pots until growth is well away.

Cuttings.—The propagating-case must be kept filled with cuttings of various kinds, such as Coleus, Begonias, Eranthemums, Marguerites and other subjects that each grower may require.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castelford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Parsnips.—This crop succeeds best when given a long season of growth. Seeds may be sown now if the soil is in suitable condition. Deep cultivation is necessary, but large dressings of fresh manure should be avoided. The rows should be at least 18 inches apart, and a saving of seed will be effected if a few seeds are dropped in the rows about a foot apart, instead of sowing in the usual way. If required for exhibition purposes, deep holes should be made with a long dibber and these filled in with a light compost passed

through a fine riddle, on the top of which a few seeds should be placed and covered with the same kind of soil. Thin out the plants as soon as they are in the rough leaf.

Onions.—Where this crop can be grown entirely out of doors, the seeds may now be sown. A day or two previous to sowing, the ground should receive a dressing of one of the advertised soil insecticides. As soon as a fine tilth can be obtained, sow also a sufficient supply of Leeks for transplanting.

Artichokes.—Jerusalem Artichokes may also be planted this month. Deep cultivation and liberal manuring are essential to secure good returns. The rows should be 5 feet apart, and 2 feet between the sets. Pinch the tops out of the shoots when the plants reach a height of 5 feet.

Fruit Under Glass.

Melons.—There is not much advantage in sowing Melons before the present time. Even a good command of fire-heat will not compensate for the lack of sunshine generally experienced so early in the year; but where a continuous succession is required, an early batch may be started now. Sow the seeds singly in small pots, from which they can be transferred to the prepared bed without potting on. Melons succeed best in a good rough loam, with a liberal mixing of old mortar rubble. See that the soil is made firm and thoroughly heated before planting out, and that each plant rests on a slight mound to prevent moisture settling at the neck of the plant. One, two or three varieties may be grown in each batch, so that a succession of fruits may be better maintained. Select varieties with a good flavour—good cultivation will not impart flavour to an indifferent sort—and keep the plants growing freely in a high and moist atmosphere.

The Grape-Room.—The stock of Grapes will now be confined to one variety, viz., Lady Downe's, and the bunches if cut and bottled in good order and kept under suitable conditions will keep fresh till midsummer. Only enough heat to keep the temperature of the room at 40° is required. Admit air daily unless the atmosphere is damp or foggy, and remove at once any decaying berries.

The Flower Garden.

Calceolaria amplexicaulis.—Autumn-rooted cuttings of this old favourite may be potted off into suitable-sized pots sufficient to carry them over till bedding out time, and if the stock is insufficient, the tops may be taken off now and inserted as cuttings.

Lobelia cardinalis.—The rootstocks should now be divided and potted up, or placed in boxes with some good fresh loam. Put them in a cool pit or Peach-house, as they are almost hardy, even in the North.

Lobelia speciosa.—Seeds may now be sown for bedding purposes. Sow very thinly and cover lightly. These generally germinate well, but when too thickly sown grow up weak, and are therefore difficult to handle. Stock plants of special varieties that have been kept to provide cuttings should now have a little more heat given them to induce growth and enable propagation to be commenced.

Plants Under Glass.

Fuchsias.—These can now be taken from their winter quarters, trimmed into shape and cleaned, and given a little heat to start them. As soon as the growths are 1½ inches long, a portion of these should be taken off to provide cuttings.

Cyclamens.—The young plants raised from seed last August should now be ready to be potted up into small pots and placed in a position near the glass, on a cool ash bottom if possible.

Clivias.—These respond readily to a little mild forcing and provide a welcome change in the cut flower supply.

Amaryllis.—Introduce a few bulbs to a warm house at regular intervals. A Melon or Cucumber house will suit well.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

PLANTS FOR EDGINGS (W. D.).—The following should prove of service: **Campanula muralis* (perhaps the best plant that could be named for your purpose), **Saxifraga muscoides* and its variety **atropurpurea*, **S. Sternbergi*, **S. apiculata*, **Gentiana acaulis* (a gem for such work), **Armeria alpina*, **Dactylis glomerata* variegata, *Phlox amena*, *Iris pumila* varieties, *Aster alpinus*, *Erigeron aurantiacus*, *Thalictrum adiantifolium*, **Aubrietia tauricola*, *Acantholimon glumaceum*, *Sedum Lydium*, *Saxifraga aizoon* *pusillaris*, and **Campanula* *Miss Willmott* and other pusilla varieties. Pinks, of course, could be grown, and such carpeting subjects as *Antennaria tomentosa* and *Achillea tomentosa*, which are easily pinched back so that they need never extend beyond 6 inches or so. We have marked the finer subjects by asterisks.

TREES AND SHRUBS.

EVERGREEN TREES TO FORM A SCREEN (E. M. P.).—*Cupressus macrocarpa*, *Pinus Pinaster* and Austrian Pine (*Pinus Laricio* var. *nigricans*) are all good shelter trees that would be likely to give good results in the position described. All grow rapidly, once they are established, but they are usually a couple of years in establishing themselves. Quite small trees, 12 inches to 18 inches high, should be planted, for larger ones are very difficult to establish. If you can procure *Cupressus macrocarpa* in pots, do so, and plant them with as little root disturbance as possible. It will even be advisable to place a small stake to each tree, in order to keep it from being blown about before new roots have been formed.

FRUIT GARDEN.

MAGGOTS IN RASPBERRIES AND LOGANBERRIES.—In reply to the enquiry by "F. M. L.," issue January 8, page 24, Mr. E. A. Bunyard writes: "The fruits were doubtless attacked by the Raspberry beetle (*Byturus tomentosus*). The Loganberry frequently suffers from this cause. This beetle attacks the fruits when in the larval stage, and causes the fruits to become deformed and shrivelled. The diseased fruits should be gathered quite early when only half developed and burned, and the beetles can be caught upon tarred boards or be shaken into cloths when they are laying eggs on the flower buds in May. Vaporite might be dibbed into the soil, or kainit dressed upon the surface to kill the young pupæ in the soil. The constant cultivation of the soil by exposing the larvæ to the weather, and attacks from birds will be of the utmost value.

PLUM TREES TO GRAFT (M. B. S.).—Plum trees may be grafted equally as well as the Pear or the Apple. But the practice is seldom resorted to, for one thing because of the trouble you refer to, and also of the shortening of the life of the trees which the severity of the operation causes. Plum tree blossom is perhaps the most tender of all fruit tree blossom; and as we happen to know something of the district in which you live, and of its inhospitable and almost impossible climate as far as the successful growth of hardy fruit is concerned, we doubt very much if a late-flowering variety would stand a much better chance of success than an early one in that part of Derbyshire. The Plum (like any other fruit tree), if it does not bear freely, produces coarse and sappy wood, which cannot be properly ripened, especially in your climate, and therefore it is hopeless to expect good crops. The Plum is a surface rooter and responds favourably to this process of root pruning. Why not root prune your trees, and so compel them to produce smaller shoots, which offer a better prospect of ripening, and as a consequence fertility, pruning the top rather hard as well.

MISCELLANEOUS.

ZAUSCHNERIA CALIFORNICA FROM SEEDS (M. M. R. C.).—Given fresh seeds, which should for preference be sown in slight warmth in the greenhouse, there

is not much trouble in raising this useful late-flowering subject. Old seeds—those of a year old, for example—sown and placed in a cold frame rarely do much good. For wall gardening it is one of the best of plants, less luxuriant in leaf perhaps, though very prodigal of flower. Seeds sown in the wall as soon as ripe, mixed with soil when introduced, would be a good way, though the quickest way of all would be to obtain a plant or two now, root a batch of cuttings during spring and early summer, and insert these in the wall crevices with soil in August next, or even in May if you can ensure the young plants receiving attention till established.

SOCIETIES.

ROYAL HORTICULTURAL SOCIETY.

THE usual fortnightly meeting, held on Tuesday last, was full of interest and variety in almost every department. Cymbidiums from Gatton Park, chiefly hybrids raised in those famous gardens, were of exceptional merit. Orchids, too, from other sources contributed not a little to the gaiety and excellence of the show. The earliest alpiners were freely displayed, many growers bringing large collections; while Carnations, shrubs and greenhouse flowers contributed their quota to a most agreeable whole.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. W. A. Bilney, E. A. Bowles, R. C. Notcutt, W. J. Bean, G. Reuthe, J. Green, G. Harrow, J. W. Moorman, J. F. McLeod, W. Howe, G. Paul, T. Stevenson, R. Hooper Pearson, J. Jennings, J. Dickson, C. Dixon, A. Turner, J. T. Bennett-Poë, C. E. Shea, C. E. Pearson, W. P. Thomson, E. H. Jenkins, J. Hudson, W. B. Cranfield, J. W. Barr and W. Bain.

Messrs. William Cutbush and Sons, Highgate, N., had an admirable display, consisting chiefly of Carnations, alpine and greenhouse flowering plants. Of the former, Lady Ingestre, a lovely salmon pink, stood out from all by reason of its colour; while Sabina (rich scarlet), Perpetual-flowering Malmaison Mrs. Mackinnon (scarlet), Scarlet Glow, Triumph and White Swan were all excellent. Among hardy flowers, *Iris alata*, Christmas Roses, hardy Heaths, Hepaticas in variety, and the earliest *Saxifragas*—*kestonensis*, *burseriana* major and *Boydii* alba—were all good. Forced shrubs, with Daphnes, were very beautiful. In addition, *Coleus thyrsoides* (rich blue) and a set of Zonal Pelargoniums gave excellent touches of colour.

Mr. Maurice Prichard, Christchurch, Hants, displayed with much skill a considerable variety of early flowering alpiners, in which the choicer *Saxifragas* played an important part. Of these, Mrs. Leng is one of the best and most profusely flowered. To this may be added Haagei and Elizabethæ, all yellow flowered and good growers. The usually sparsely flowered *Saxifraga Salomonii* was full of bud and blossom, while *burseriana* gloria and *tridentina* were in excellent form. *Helleborus magnificus* is the finest of the dark-coloured Lenten Roses, a very handsome plant, and Pierre Loti one of the most heavily spotted. *Megasea speciosa rosea* is a great gain among the earliest flowers and was admirably shown.

The Misses Hopkins, Shepperton-on-Thames, showed a group of hardy flowers, such as *Petasites japonica*, coloured Primroses and the early *Saxifragas* being included.

Messrs. Waterer, Sons and Crisp, Bagshot, showed alpiners on rockwork with shrubs. *Soldanellas*, *Sisyrinchium grandiflorum*, and *Saxifraga Boydii* alba, a beautiful lot, delightfully flowered, were among the best things.

Mr. G. Reuthe, Keston, Kent, showed a beautiful lot of *Berberis Bealei*, many 3 feet long branches being shown in full flower. *Iris reticulata purpurea*, *Narcissus minimus*, *Rhododendron moupinense* (white, crimson spotted flowers), *R. dahuricum sempervirens* and *R. mucronulatum* were, among others, very good. *Ribes laurifolia* and *Sarcococca humile*, with pretty white flowers, were also good.

Messrs. Piper, Barnes and Bayswater, contributed an extensive assortment of alpiners, some goodly batches of the early hardy Cyclamen, *Saxifraga burseriana* major, *S. Paulinæ* and *S. Boydii* alba being shown among others. *Rhododendron præcox* was also good.

Messrs. Whitelegg and Page, Chislehurst, Kent, displayed a charming variety of alpiners, the chief of them being in flower. Of these we noted *Saxifraga coriophylla* (white), *S. Boydii* alba, the yellow-flowered *S. apiculata*, *S. Faldonside* and *S. Elizabethæ* being shown in fine masses.

Messrs. Herbert Chapman, Limited, Rotherside Gardens, Rye, showed a particularly interesting batch of *Iris Cantab.* one of the early bulbous section; also a variety of seedlings of many shades of colour, from white through blue to richest purple. *Iris Tauri*, *I. sind-pers* and *Freessias* were also on view.

Mr. Clarence Elliott, Stevenage, had a lovely display of *Saxifraga Gloria* and *S. Boydii* alba, without doubt the two best white-flowered early sorts. *S. Irvingi* and *S. Faldonside* were also noted among others. The pretty *Raoulia australis*, a silvery carpeter, and *Hepatica angulosa* were also on view.

Messrs. Stuart Low and Co., Enfield, showed a fine strain of giant Cyclamen in white, salmon, crimson and other shades. Carnations were also well shown, Mrs. Mackay Edgar, Baroness de Brien and May Day Improved (all pink flowered) being very good. Philadelphia Cerise,

British Triumph, White Wonder and Matchless (the best whites) were also on view.

Messrs. J. Cheal and Sons showed some interesting shrubs, *Forsythia suspensa*, *Hamamelis* in variety, *Daphne Mezereum* album and the male form of *Hippophaë rhamnoides* being among them. *Garrya elliptica* and *Cydonia japonica* in variety were noted. Messrs. Cheal also showed a variety of alpiners, including *Anemone blanda*, *Saxifraga oppositifolia* alba, and *Primulas*.

Messrs. Allwood Brothers, Hayward's Heath, showed Carnations excellently, Rosette (cerise), Brilliant (white-flowered fancy with maroon markings), Mary Allwood (very fine), Mrs. B. P. Cheney (white and scarlet fancy), Mrs. C. F. Raphael and Terrific (a pale pink flowered Perpetual Malmaison) being very good. Rosalind (yellow-ground fancy) was particularly striking among new sorts.

Messrs. H. B. May and Sons, Limited, displayed a table of Ferns, with a few *Cinerarias* and *Euphorbia jacinthiflora*. Among good Ferns were the hardy evergreen *Polypodiums* and *Scolopendriums*, in the former of which Barrow and trichomanoides were well done. The tasselled *Scolopendrium grandiceps* was very fine, the crispum variety *Robinsoni* being one of the handsomest of its set. *Polypodium glaucum crispum* and *Adiantum Farleyense gloriosum* were finely shown.

Double Violets were shown by Mr. H. Rogers, gardener to Lord Rendlesham, Woodbridge; they were exceptionally well grown and of large size.

Mr. L. R. Russell, Richmond, showed a table of shrubs, such things as *Daphne Mezereum* album, *Hamamelis arborea*, *H. zuccariniana* in two varieties and *H. mollis* all being well shown. *Garrya elliptica* was also good. Well-flowered Azaleas were also well displayed.

A collection of forty varieties of Violets, shown by Mr. J. J. Kettle, Corfe Mullen, near Wimborne, was one of the features of the show. Coleroona, Jamie Higgins, Mrs. J. J. Astor, La Belle Parisienne, Mrs. J. J. Kettle, Mrs. Arthur and Swanley White are all double-flowered. La France and Princess of Wales were among the best of the singles.

Messrs. Wells, Limited, Merstham, showed Carnation Aviator (rich scarlet) and Pink Sensation among others. *Chrysanthemum Bertha Lachaux*, a pink-flowered variety, was in excellent form for so late a date.

Messrs. Carter and Co., Raynes Park, exhibited their choice strains of *Primula sinensis*, of which P. stellata Carter's White, Holborn Coral, King Edward VII. (a very fine white), Princess May (probably the most charming of the pink-flowered set), and stellata Fairy Queen were very beautiful. A delightful grouping of *Primula mala-coides* was in the background.

Mr. G. W. Miller, Clarkson Nurseries, Wisbech, showed a lovely lot of Christmas Roses, with Daisies Norfolk Pink, Rob Roy, and White Alice; red Hepaticas, Polyanthus and Blue Primroses, and many excellent vases of *Narcissus Golden Spur* and *N. Poeticus ornatus*.

ORCHID COMMITTEE.

Present: J. Gurney Fowler, Esq. (chairman), Sir Harry J. Veitch, Sir Jeremiah Colman, Bart., and Messrs. J. O'Brien, Gurney Wilson, J. Wilson Potter, F. J. Hanbury, Pantia Ralli, A. McBean, Walter Cobb, T. Armstrong, J. Charlesworth, J. Cypher, W. H. Hatcher, H. G. Alexander, J. E. Shiel, E. H. Davidson, C. H. Curtis, S. W. Flory, W. Bolton, C. J. Lucas, R. B. White and R. A. Rolfe.

Messrs. Sander and Sons, St. Albans, among a few choice Orchids showed *Odontioda Cooksonia*, with a very extended raceme of crimson flowers; *Lycaste Mesochlæna*, with greenish and white flowers; *Lælio-Cattleya* J. F. Birkbeck, *Cattleya Snow Queen*, *Dendrobium wardianum giganteum*, and *Odontoglossum coronarium* var. *brevifolium*. Silver Flora medal.

Sir Jeremiah Colman, Bart., Gatton Park, Surrey (gardener, Mr. J. Collier), had a remarkable show of Cymbidiums, home-raised seedlings of great beauty and interest. Of these, the Queen of Gatton varieties in rose, pink, buff and yellow were all charming; while gattonensis, Lady Colman, Golden Queen, coningsbyanum and gattonensis × grandiflora, a green-sepal, white, crimson spotted lipped sort, were choice and distinct.

Messrs. Charlesworth and Co., Hayward's Heath, had a select batch of Orchids, including *Odontioda Joan* in more than one distinct shade, O. Langowoyi (crimson maroon sepals and white lip), *Odontoglossum lambeauianum* var. *Lyoth* and O. Louise. *Sophrro-Cattleya Saxa* (carmine, almost cerise shaded) was very beautiful. Silver Flora medal.

Mr. C. F. Waters, Deanland Nursery, Balcombe, Sussex, showed some choice *Lycastes*, *Cypripediums* and *Odontoglossums*, together with *Dendrobium wardianum* and *Vanda cærulea* in three distinct varieties.

Messrs. J. Cypher and Sons, Cheltenham, had a lovely lot of *Cypripediums*, such as C. leeanum clinkaberryanum, C. Thompsonii (with rosy dorsal sepal), C. aureum virginale (white dorsal sepal and brownish sepals), together with *Sophronitis*, *Brasso-Cattleyas* and *Calanthes*. Silver Flora medal.

Messrs. Armstrong and Brown, Tunbridge Wells, showed very fine examples of *Miltonia bleuana*, *Epidendrum polybulbum* (a curious miniature), the rare *Cattleya percivaliana* alba (white sepals and petals and golden orange throat), *Odontoglossum amabile* and others. *Odontoglossum Anzac* (eximeum × Colossus), for which a preliminary commendation was granted, is a very dark-blotched form, one of the many good things in which this firm excels. *Cypripedium Boltonii* and *Pilumna nobiliss* (white flowered and delightfully fragrant) were also in the group. Silver Flora medal.

THE GARDEN.

No. 2307—VOL. LXXX.

FEBRUARY 5, 1916.

NOTES OF THE WEEK.

Kew Gardens Receipts.—The charge for admission into Kew Gardens began on January 17. The receipts during the first week amounted to £42 12s. 7d.

No Spring Bulbs at Hampton Court.—Visitors to the historic gardens at Hampton Court will this year look in vain for the large beds of Hyacinths, Tulips and Daffodils that have made displays of splendour in springs gone by. Fearing a diminution in summer bedding also, the inhabitants of the district have expressed a wish that they would prefer an entrance fee like that recently instituted at Kew, rather than be without spring bulbs and summer bedding.

The Butterfly Flower.—The *Schizanthus*, or Butterfly Flower, is one of the most floriferous subjects for decorating the conservatory at the present time, and many such places are looking very gay where they are freely used, both in large and small gardens. There are several strains now on the market with a wonderful variety of colour and beautiful compact habit, much to be preferred to the old straggling habit of the type.

A Long-Lived Primula: *P. Forrestii*.—The requirements of this beautiful species do not seem to be well understood, proving difficult and disappointing to most of us to grow. In places it will not survive the first winter if planted on the level without protection, but planted in a nearly vertical fissure protected from overhead wet it will do well when once established, increasing in size and flowering profusely every year. It is named after Mr. George Forrest, its collector, who found it growing on the high Alps of Yunnan. It is supposed to be a long-lived plant, often attaining the age of fifty to a hundred years on its native mountains. The flowers are golden yellow, fading to rich orange, and have the fragrance of ripe fruit. This peculiarity is not confined to the flowers alone, but is also given off by the charming wrinkled foliage.

Sulphate of Ammonia.—In view of the uncertainty as to the sufficiency of the supplies of sulphate of ammonia to meet the home demands during the next few months, it has been decided, with the approval of the President of the Board of Agriculture and Fisheries, to suspend for the present the export of sulphate of ammonia. Under normal conditions it is well known that the production of sulphate of ammonia considerably

exceeds home requirements, but it is hoped that farmers and gardeners will this year greatly increase their demands for fertilisers of all descriptions, so as to stimulate so far as practicable the production from the land and thus reduce the importation of foodstuffs.

Rose Hoosier Beauty.—This new American variety, bids fair to rival Richmond, on which it is said to be an improvement in growth, and also in the colour of the flowers. Certainly the dazzling colour of the new-comer does not fade or turn

Boil in plenty of water for at least an hour. In some cases rather more time is required. Serve with the ordinary white sauce or melted butter.

The First Orchid Nurserymen.—Orchids now occupy a most prominent and important position in modern gardens. Week in, week out, they are exhibited at the fortnightly meetings of the Royal Horticultural Society before a special committee, some members of which take long journeys in order to be present. It was not always so with these plants. Messrs. Loddiges of Hackney are said

to have been the first firm that specialised in Orchids. They had a house 140 feet long, 18 feet wide and 10 feet high, the centre of the span being completely filled with them. This feat was considered something very wonderful.

Sporting of Bouvardia.—At a recent meeting of the scientific committee of the Royal Horticultural Society, Prof. W. Bateson showed a sport from the pale pinkish form of Bouvardia, known as Bridesmaid, like Hogarth in every way, *i.e.*, of a red colour. It had occurred among plants raised from cuttings of the former. He suggested that the probable explanation of the sporting was that Bridesmaid was a chimera, and that as the buds on the root cuttings were produced from the central tissues of the root only, the outer covering present in Bridesmaid was lacking in the plants propagated from it. Such sporting in root cuttings has been recorded several times, especially some years ago, and the committee would be glad to learn of other similar cases.

National Diploma in Horticulture. The 1916 examinations for the National Diploma in Horticulture will be held in June next. The examinations are partly written, partly practical and partly *viva voce*. This Diploma was established with a view of bestowing a recognition upon professional gardeners, and of raising the status

of the gardening profession. Full particulars can be obtained by applying to the Secretary, Royal Horticultural Society, Vincent Square, Westminster, S.W., on receipt of an addressed foolscap envelope, stamped 2d. Entries for the Qualifying Test must be received not later than March 2, and for the Preliminary and Final Examinations not later than March 10. Application forms for registration and forms of entry can likewise be obtained from the address given above.



THE BEAUTIFUL PRIMULA FORRESTII. IT IS SAID TO LIVE TO A GREAT AGE IN ITS NATIVE HABITAT.

blue, either on the plant or in a cut state. The blooms are shapely, freely borne, and are very fragrant. From present appearance this cannot fail to be a useful and popular variety in the open as well as under glass.

How to Cook Celeriac.—A well-grown root of Celeriac should measure not less than 5 inches in diameter and as much in depth. Carefully peel off the rind, cutting away all irregularities of root protuberances. Cut into six pieces in the case of large roots, quartering the smaller ones,

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Primulas of Doubtful Hardiness.—*Primula malacoides* is quite hardy in some gardens, but it is not absolutely dependable, possibly owing to large plants being liable to rot at the necks. I have seen it standing the winter in the Vale of Leven, in Dumbartonshire, as well as in gardens in the South of Scotland. I have not heard of *P. kewensis* standing the winter in Scotland. I fear we shall have to write down *P. Purdomii* as too tender for outdoor cultivation, though it has not been well proved. It belongs to a difficult section, practically all the plants in it requiring what we cannot well give in this climate of ours—water from below and none or almost none above.—S. A.

“Urbi et Orbi.”—May I be allowed to state that I no more call a seed a flower, or an egg a chick, than I would the Dinton cook’s mixture a pudding. *Requiescat in pace.*—JOSEPH JACOB.

Erythræa Massonii.—Regarding this pretty little plant, referred to in the issue of January 22, page 41, it may be of use to mention that it may be cultivated successfully in a dry soil, provided it receives a certain amount of shade, such as that afforded by a plant 2 feet or 3 feet high, or a large stone, if on rock-work. It is really a moisture lover, and the advice given on the page referred to is quite correct.—S. ARNOTT.

Fairy Roses.—I fancy there is an old saying that “a cobbler should stick to his last,” and I could not help thinking so when I read the Rev. Joseph Jacob’s recent letter regarding Fairy Roses. And now another correspondent—a “Rose Grower,” forsooth, who should know better—enters the arena with another paragraph about Fairy Roses. I take it both Mr. Jacob and “Rose Grower” are referring to seedling Roses raised from *Rosa multiflora* or the Polyantha Perpetual Rose. These, strictly speaking, are Polyantha Roses, or, as the National Rose Society names them, “Poly. poms.,” abbreviations for Polyantha pompon. I am quite aware some growers term these Polyanthas “Fairy Roses,” but the true Fairy Roses are varieties belonging to *Rosa indica* and formerly known, many years ago, as Lawrenceana Roses, and they were first introduced from China about 1810. There are few, if any, British growers who catalogue them now, but M. Guillot of Lyons had them in his list a few years ago. I have two varieties, one named Gloire des Lawrenceanas being a very pretty little thing, like a tiny Monthly Rose, the tiniest Rose I know. I question whether any of them are worth growing to-day. It is as well for us to be as accurate as we can, and I think the name “Fairy Rose” should not be applied to the little seedling Polyanthas which Mr. Jacob so eloquently extolled.—DANECROFT.

The Witch Hazels (*Hamamelis*).—The writer of the article on these delightful winter-flowering shrubs, on page 44, January 22, of THE GARDEN, has omitted to mention the best of them all, namely, the Chinese *Hamamelis mollis*. It is of a far more shrubby habit of growth than *H. arborea*, while the large, roundish leaves are soft in texture, being clothed with clustered hairs. Another feature is that the blossoms expand, as a rule, before those of *H. arborea*, from which they are quite distinct. Instead of being crisped, the petals of *H. mollis* are flat, except for a kind of hook at the tip. They are broader than the others and of a rich golden yellow colour, so that, being freely borne, a specimen when in full bloom

vernal. Like the Asiatic species, it flowers in the early months of the year. The blossoms, however, are more like those of *H. virginica*, except that the calyx lobes are red. The leaves, too, are of a paler green, and it is said to spread by means of suckers. It is an interesting species, but for beauty not to be compared with the Asiatic kinds.—H. P.

Male and Female Plants of *Asparagus*.—Re the note on large *Asparagus*, issue January 29, page 50, there is, I think, no doubt that the male and female flowers of the *Asparagus* are borne on separate plants. This is, at any rate, the case with all the plants in my own garden and in those of my neighbours. I have been interested

in the question for several years past, for it occurred to me that those who raise their own plants from seed would do well not to plant them in their permanent positions until they had flowered and shown their sex, and then to plant only male plants. No seeds would then be formed and no amount of carelessness could then allow the beds to become a thick forest of seedlings—a frequent cause of the diminution of the size of the shoots.—W. R. DYKES, *Charterhouse, Godalming*

Border Carnations.—I have read with great pleasure the recent article by Mr. Gibson. Perhaps a word from a Scottish grower will be appreciated, as I am convinced that certain admittedly first-rate varieties do not do well here, and *vice versa*. Exhibitors here grow in pots under glass, as the moist climate is all against good blooms. I hope the following selection will be read with interest by our Southern friends as well as by the increasing number of growers in Scotland. For exhibition purposes I recommend: White.—Bookham White, Bellfield White (or Prairie Belle, as it is wrongly named, and which grows well in its native Ayrshire, although I understand it is difficult to get in the South) and Mrs. Adair Campbell, another locally raised variety. Yellow.—Mrs. Elliot Douglas or Daffodil, but we still await an ideal yellow. Pink.—Mrs. Robert Berkeley or Innocence. Rose.—Wyatt or Rosy Morn. Scarlet.—Fujiyama or Scarlet Glow until we get Bookham Scarlet next autumn. Crimson and maroon.—Gordon Douglas or Basuto. Tubal is also very fine. Buff, &c.—Robert Bruce (a very fine

colour) or Dora Blick (petals rather small). Purple, &c.—Irma, Miss Rose Josephs and Jim Bludzo (a very good lavender). Fancies, yellow ground.—Margaret Thurston, Mona, The Baron, Bombardier, Prince Albert, Lieutenant Shackleton, Linkman and Mrs. Sims. Fancies, white ground.—The Bride, Glenrosa (a new variety to be introduced next autumn) and Daisy Walker (although a little disappointing last summer). Picotees, yellow ground.—Onward, John Ruskin, Dago and Mrs. J. J. Keen. Picotees, white ground.—Osprey, Clytie, Dorothy and Mrs. Hammond. Perhaps “Lancastrian” will oblige your readers with a list of the sports and seedlings he mentioned, and where they can be procured.—AYRSHIRE.



THE BEST OF THE WITCH HAZELS. THE CHINESE HAMAMELIS MOLLIS.

forms a charming winter feature. A pleasing fragrance, too, is a valuable asset. These various desirable qualities account for the popularity it has attained within recent years. A singular fact in connection with this *Hamamelis* is related in “Hortus Veitchii,” where it is stated that it was sent home by Charles Maries, who was travelling in China on behalf of Messrs. Veitch from 1877 to 1879, and that it was overlooked in Coombe Wood Nursery for twenty years till Mr. George Nicholson brought it under notice. Since then it has been discovered by Messrs. Henry and Wilson. For many years *H. virginica* was regarded as the only American Witch Hazel, but recently Professor Sargent has described a new species from the Western Continent, under the name of *Hamamelis*

Adonis amurensis.—The note (page 37) on this good thing describes it as flowering in February. It usually appears much earlier on the West Coast. The dates of earliest blooms during the last six years have been as follows: January 8, 1910; January 13, 1911; January 8, 1912; January 13, 1913; January 8, 1914; not noted in 1915; January 4, 1916. Sometimes when in full flower the stems are laid prostrate by frost; but when the thaw comes they rise erect as if nothing had happened.—HERBERT MAXWELL, *Monreith*.

Lowther Castle.—The view and description of Lowther Castle requires emendation. This is more than a stately home of England; it is princely. A noble Gothic pile on a plateau above the deep valley of the river, Lowther is rather dwarfed in its impression by high ground rising immediately to the east. Wordsworth's noble lines are apt:

"Lowther in thy majestic pile are seen
Cathedral pomp, and grace in apt accord
With the baronial castle's sterner mien
Union significant of God adored
And charters won, and guarded with the sword
Of ancient honour."

About seventy years ago the gardens and park were largely remodelled, and the old approach from the high ground on the east given the alternative of a drive up the valley from near Brougham, which shows the Castle in a true perspective. The park of 600 acres is but the deer park to the south. The park to the north is much more extensive. The south front shown in the illustration has the principal lawns and a beautiful prospect up the deer park. Beyond this to the west is a hollow, which contains the Yew tree avenue referred to, and on the further side a terrace with trimmed Yews. None of these is of great age or size for Yews. Though a fine feature, they would not compare with the ancient Yews of the South of England. This hollow between the Castle lawns and the boundary wood has had immense labour and expense bestowed on it. At the lower end is a sunk flower garden, which, laid out geometrically, is very striking. Higher up are some fine coniferæ, with one of the largest trees of *Pseudotsuga Douglasii* in Britain, some relics of

ancient Carthage, a rock garden which the writer partly constructed, and other features. At the upper end is a rosary of over two acres, with a herbageous border and bedding out. As beyond there is a wood and the Beeches referred to, the visitor may here suppose he has seen all. Yet there remains the feature which will give him the most lasting impression. A path from the rosary suddenly emerges on a high terrace, chiefly natural, overlooking the Lowther Valley, with a glorious prospect over the hills rising to the mountains which encircle Ullswater. This terrace fringes the boundary wood for nearly a mile, and few places possess a feature of such surpassing natural grandeur. The kitchen garden and principal glass houses are on the high ground to the east, and in keeping with the noble demesne. It would require a large volume to describe Lowther, or even its most remarkable features. It is a place which will amply repay a long journey to see.—HURSTCOT.

"Witches' Broom" on the Willow.—These curious and destructive gall growths are caused by the attacks of one of the mite insects, *Eriophyes triradiatus*. In 1906 I forwarded specimens of these moss-like growths on *Salix fragilis* to Kew and other places for identification, but without results, and only two years ago learnt that the above-named insect, not before recorded in Britain, was responsible for the attacks. The growths were first noticed on a tree growing by the lakeside in Regent's Park, and later

on in the grounds of the Royal Botanic Society about 200 yards away, the attacks being confined to healthy, well-developed specimens of *S. fragilis* some three-quarters of a century old. In nine years, between 1906-15, the attacks spread gradually over the trees in the Park, until at present hardly one of the numerous species and varieties have escaped; indeed, with the exception of the Sallow or Goat Willow, all have fallen victims to the attacks of this insect. The Babylonian Willow and its hybrids, *S. elegantissima* and *S. Salomonii*, suffer most, though both the Crack and White or Huntingdon Willows are badly attacked. Curiously enough, the Goat Willow,



"WITCHES' BROOM" ON THE WILLOW.

though growing close to affected trees and the branches intertwining, has not suffered, and I have been unable to find a single instance of attack on this species. From the frequency of growth and as being first recorded from the district, it is not at all improbable that the trees in Regent's Park were first attacked, since which time it has extended all over the Metropolitan area and as far out as Epping Forest. When first noticed in 1908, the Willow by the lakeside had only a few of the growths, but year by year they have increased with great rapidity, until at the present time the tree when viewed at a distance has the appearance of being studded with tiny bunches of Grapes hundreds in number, forty-seven having been counted on a branch 8 feet long and 3 inches in diameter of stem. So numerous and weighty are they that during the past summer and autumn some of the affected branches have been blown down by the wind. The growths are of all shapes and sizes up to 15 inches in length and 5 inches in diameter, and generally occur on twigs of two or three years' growth. In summer the growths are of a deep green colour, turning purplish towards autumn, and are jet black in winter. Usually the branch tip dies back from the point attacked, and often the same branch is the host of the growth for three or four consecutive years, the attacks being directed nearer the main stem each season. Though few trees, so far, have been killed outright, yet several have suffered severely and wear a by no means healthy appearance, and there is little doubt that the repeated presence of the growth will have a decidedly injurious effect on the constitution of attacked trees. The accompanying illustration gives a good idea of the winter aspect of the attacked trees.—A. D. WEBSTER.

FORTHCOMING EVENTS.

February 8.—Royal Horticultural Society's Meeting and Exhibition, 1 p.m. to 5 p.m. Royal Horticultural Hall, Vincent Square, Westminster.

February 9.—Sheffield Chrysanthemum Show and Lecture.



ADONIS AMURENSIS, ONE OF THE EARLIEST FLOWERS.

NOTES FROM MYDDELTON HOUSE GARDENS.

By E. A. BOWLES, M.A., F.L.S.

GALANTHUS BYZANTINUS has been the reigning beauty of the Snowdrop family ever since I wrote the last notes, and is still likely to hold the first place for some days, until that fine form of the Neapolitan Snowdrop known by the lengthy title of *G. Imperati* var. *Atkinsii* is fully out. This latter is so tall and produces such a beautifully pear-shaped bud and long, elegant open flower, that where it does well, as under the long south wall at Bitton, its well-established clumps are hard to beat, and most other Snowdrops lack some beauty and grace in comparison with it.

My favourite of all those of which I have made drawings is the Straffan Snowdrop, with the mysterious origin. From its characters I see no reason why it should not, as generally stated, have been brought from the Crimea. It clearly belongs to that group of Caucasian forms, all of which have narrow and flat leaves, and always produce a couple of flowers from each pair of leaves, a generous trait not often found in the more Western form of *nivalis*. Of late years a hybrid parentage has been suggested for it, chiefly on account of its reputed sterility; but to my eye it carries quite 90 per cent. of *G. caucasicus* in it, whatever the other parent may be. As I have received plants in flower from its Irish home, it is as perfect in proportion and habit as a Snowdrop can be; but it lacks something here, the equable, moist climate of the West most likely, and is a very late bloomer. What is much more serious, it is a poor grower, and will never make a show in this garden equal to that *byzantinus* provides so good temperedly. It seems to be but little grown, yet I expect it would prove one of the most reliable of varieties to plant in drifts and carpets in shrubberies to come into flower before the ordinary Snowdrop. My reasons for believing this are based on the way it has increased both from offsets and self-sown seeds, so much faster than other Snowdrops in several different parts of the garden. It seems to be less particular, in fact, and this may be due to its supposed hybrid origin. It is said to be a wild hybrid of *Elwesii* and *plicatus*, and certainly looks like it, having the flower of the former and the leaf of the latter—one might say the best features of both parents.

The additional green markings at the base of the inner segments so characteristic of *Elwesii* are very strongly represented in *byzantinus*, and often coalesce with the usual horseshoe-shaped mark and give a rich effect to the half-opened blossoms. I have looked over the clumps carefully to-day, and find that the majority of plants produce these handsome forms with deep green petticoats under their full white skirts. When the leaves first appear, their outer margins are folded under just as markedly as in *plicatus* itself, the species which owes its name to this peculiar leaf structure. In middle age the irregular unfolding of this edge causes many angles in the outline and much variety of width in the leaf, but finally the blade flattens out into a very wide and handsome leaf of a pleasing deep and rich green much less glaucous than that of *Elwesii*. Now it evidently

inherits a strong constitution and some of its parents' good points without their extremes. It does not require thorough a ripening as *Elwesii* demands here, nor does it pine for the pampering mildness of West Coast gardens that I feel is so much loved by *plicatus*.

I am always on the look-out for satisfactory combination plantings, plants that will play

Box and Cox amicably, or form a mutual admiration society and the one show off the charms of the other. One of my most successful hits is of the first class, where *G. byzantinus* plays Box and *Lilium giganteum* Cox. Just now Box 'has the stage to himself and carpets the ground, and will have obtained as much light as he needs for his leaves before the Lily's larger

ones cover the ground and screen it off. Another success is *Iris histrioides major* in a carpet of *Raoulia glabra*, and such a close, dense carpet that one marvels how the Iris ever gets through it, until one notices what sharp tips its leaves and spathes are endowed with, and what a strong point they form when packed closely together as they are at their first emergence above ground. Thus they spear a way through the wiry stems of the *Raoulia*, and then, as they open out, the delicate flower-bud passes upward between their points. The very large flowers look almost un-

natural when rising out of bare earth, like a piece of blue paper lying on the border; but above the *Raoulia* and backed by grey

Kentish Rag they are lovely in the wintry sunshine, and when the patch has been left alone for several years and the corms have increased, there will be sometimes as many as six blooms packed together as closely as if bunched in the hand and tied round. They vary a little in the purplish or ultramarine tint of the blue, and also in the date of flowering. Some, I see, are only now piercing through, while others have been 'out for more than a week. So in planting a clump of, say, a dozen it is best to plant each corm at a distance of several inches from its neighbours, to allow it to spread into a tuft in the future and that all the blossoms of each tuft may be of the same colour and open simultaneously; and I believe, as with Snowdrops, the chief secret of success is to plant as early as the roots can be procured, not later than the first days of September.

The very rich orange *Crocus aureus*, contrariwise to the Iris, looks best, to my taste, with a background of dark brown earth. It is supposed to be the wild form from which the commoner plant, the old Dutch Yellow, has been derived, and, if so, it seems a pity the Dutch were not



AN EARLY SNOWDROP GALANTHUS BYZANTINUS.

(From a drawing by E. A. Bowles.)

contented with the wilding and did not increase it by millions. Its colour is as rich as the skin of a ripe Orange, and it flowers a week or two before the Dutch Yellow, and seeds and spreads freely where not harassed by the hoe of the over-tidy gardener. The best—that is to say, deepest-coloured and largest form—is sold by Mr. Smith of Newry as *C. moesiæus*, and is a grand plant, rightly placed. I like it best in an irregular-shaped planting under some deciduous shrub, and I believe it appreciates the slight shade the shrub gives it in summer as much as I do the effect of its glow of orange contrasted with the brown soil and bare twigs and branches in midwinter.

If only *Raoulia australis* will prove as hardy and rapid a spreader as *R. glabra*, it ought to make a delightful carpet for richly coloured bulbous plants. It clings to the ground even more closely than the other, and its tiny leaves are as silvery as certain lichens that make grey circles on rocks. It only reached me last summer, and has more than trebled itself in the time it has been here, in spite of having chips removed for almost every friend who saw it, for to see it is to long for it, so attractive is it spreading out on the surface of my latest experiment—the coal dust moraine—and looking all the more silvery from its black background. I should like a square yard of it, with tufts of *Iris reticulata* Krelagei's deep vinous purple and a sprinkling of *Crocus gargaricus* blooms rising through it. This quaint little *Crocus* is the only one I know of the spring flowering species that shows no trace of leaves at flowering-time, and its clear orange, globular little flowers should look well above the *Raoulia* and less naked than they do on the bare soil. If thinly planted, their leaves should not injure the living carpet; but I find few things can stand the matted elf locks of the leaves of a large clump of *Crocuses* lying on its young growth.

Both of these *Raoulia*s come from New Zealand and are near relatives of the wonderful *R. eximia*, which forms large woolly mounds on the bare hillsides, looking so much like a wandering sheep as to have deceived many a shepherd, and is therefore called the Vegetable Sheep. These two plants I grow only cling to the ground and show no sign of making a mound, and form the firmest, tidiest carpets of any plant I know.

I built a little adjunct to the rock garden last spring to form a lodging for some choice Saxifrages, and as it is separated off from the main mass of rocks, it has been called the Isle of Wight. Its northern cliffs are planted with the Saxifrages, and though it is much too soon to boast of success, yet some look wonderfully well for this Saxifrage-killing climate. Two forms of *Burseriana* have been in fine flower for the last week. *Var. tridentata* came out first and appeared lovely enough until *var. magna* eclipsed it with its large, short-stemmed flowers of exquisite whiteness. These two forms are far ahead of any others in earliness this season. *Gloria* may be out next week, but its buds are still round and tightly buttoned up; at least, that is here in the miniature Isle of Wight.

ANNUALS SUITABLE FOR MASSING OR BORDERS.

A STUDY of absorbing interest is the creation of a floral display. Annuals, either alone or used in conjunction with other plants, provide us with excellent material; moreover, it does not follow that if used separately the list of varieties need be a long one. Indeed, it is debatable whether for sheer wealth of blossoms a bed or border of *Godetias* or *Nasturtiums* can be improved upon.

The essential point is to bear in mind the object aimed for. Should the annuals be required to fill up vacancies on a mixed herbaceous border, ascertain carefully, before sowing or planting, the

Lavatera, **Linums*, annual *Lupines*, **Mari-golds*, **Nemesias*, *Nigella*, **Phlox Drummondii*, **Phacelia*, annual *Poppies*, *Salpiglossis*, Sweet Sultan and **Zinnias*, we provide ourselves with an ample selection for general use. Those marked with an asterisk are suitable for use near the edge of the border, and for this purpose *Mignonette* should be found room for also. The use of annual foliage plants must be decided by individual taste, but they may easily be dispensed with.

Almost invariably circumstances over which we have no control dictate the site where the plants must be grown; but, given the privilege of selection, it is well to keep away from gravel pathways, for they are an abomination as a "setting" for a floral display. A broad grass pathway, with beds or borders on either side having as a background shrubs or an evergreen hedge, provides us with valuable assistance in



A BORDER OF GODETIAS.

colours and habits of the permanent occupants of the bed, thus avoiding, if possible, any distasteful combinations. Where, however, a colour arrangement is followed in the herbaceous borders, this difficulty hardly arises, as our leading seedsmen generally describe colours of annuals fairly accurately. Assuming a border or set of separate beds be devoted to annuals, it is helpful to make a rough plan and mark the colours, as this assists in avoiding errors in the arrangement. Unless for sheer love of number of varieties, use fewer rather than many in all cases. Beds, unless very large, are better planted with one variety, and for this purpose *Antirrhinums*, *Asters*, *Godetias*, *Eschscholtzias*, *Clarkias*, *Larkspurs*, *Stocks* and *Nasturtiums* are admirable. The latter must be grown on poor soil, or the foliage will predominate. If we add to the above *Cosmos*, *Cornflowers*, *Coreopsis*, **Candytuft*, **Dimorphotheca*, **Dianthus*

creating an harmonious picture. Of the dozen colour sections one may enumerate, "three pivots" of colour may be aimed at, *i.e.*, through yellow and orange shades to scarlet, through blues to purple, and through pink and rose to crimson. We have, therefore, to centre our aims in the use of nearly all other colours, to approach with a gradually growing tone the three outstanding shades of scarlet, purple and crimson. Assuming two borders, one on either side of a pathway, are to be planted, a really effective arrangement is worked out thus: No. 1 border—Crimson, scarlet, purple. No. 2 border—Purple, scarlet, crimson. A few essentials may be summed up as under: No plant should be used unless its colour is thoroughly known. Formality in the arrangement of the plants should be rigidly excluded. Allow each plant room to breathe.

Serlby Gardens, Bawtry.

H. TURNER.

WINTER IN THE GARDEN.

THIS is the season of calm and thoughtful retrospection. That of fruition for the horticulturist has, for a period, passed away; from the heights of whatever experience he has gained he can look back upon his successes or failures in the past. It is not a period of outward beauty, though undoubtedly one of great inward significance. The glory of the lustrous leaves has faded from the trees; our gardens wear, for the most part, a forsaken and desolate aspect; the last Rose of autumn, which outlived the Viola and rivalled the Chrysanthemum, "is faded and gone."

Yet Nature is not so lifeless in reality as in aspect she appears. Her fairest children are only dormant; they are not dead. With them it is the period of repose; they are repairing their vitality and renewing their strength; they are resting—unless in the direction of root production—from their manifold beneficent activities, till they experience once more the inspiration of the spring. Throughout the vast domains of gracious Nature, capability of growth and evolution is latent; it is not dead. And thus this pensive season, however saddening to the superficial vision that has not the faculty of seeing beneath the surface, is by no means to the earnest, horticultural spirit destitute of hope. Nor is it lacking in manifestations of activity to him who finds some fascination in his garden at all seasons of the year. He sees that the beautiful Madonna Lily has during the earlier months of winter been steadfastly growing, fearless of all danger, and spreading out with calm confidence on the herbaceous borders its green and luminous leaves. He watches daily, with the pride of a parent, the gradual growth of the pendulous Snowdrop, the first fair, floral daughter of Nature that rises from the grave of her former beauty to hail with its purity and unadorned loveliness the new-born year. He bends reverentially, remembering its exquisite sacred associations, over the snowy splendours of the Christmas Rose.

And thus to him winter is not desolation; he knows from experience that to Nature it is not death. Unlike others, he rejoices in her white shroud of glistening snow; for he feels that beneath this mystic covering, as if enfolded in ermine, her heart is beating still. And it is a matter of thoughtful observation that, when the covering snow has gradually faded into and fertilised the earth, a delightful transformation, vernal in its freshness and beauty, is disclosed.

It is chiefly in such scenes of the purest activity—those modern Edens, in which man finds, even as of old, his deepest and most abiding blessedness—that we acquire a deep reverence which is more than all knowledge; a wisdom born of Nature which is a more consoling and permanent possession

than the breath of human fame; for the love of a garden, through all our manifold trials and vicissitudes, is steadfast and remains; it is a possession which the frivolous world has not given and cannot take away. DAVID R. WILLIAMSON.

ROSES IN NEW ZEALAND.

MR. FRANK MASON writes on November 27, 1915, from Sandow Road, Feilding, New Zealand: "In your issue of September 18, on page 457, 'H. G. B.' makes some remarks about that grand Rose Alberic

but it is one that everybody must admire. The pink blooms are so soft and have a delightful scent, and the growth leaves nothing to be desired. When this Rose is better known out here, it will be in great demand. The continuous blooming habit is much better than those that last for a few days and are then over. These three Roses are the best of their varieties that I know. Can anyone recommend a red with the same habit and foliage, and a white? I have tried most of the new Roses, and have found some of them wanting. Red Letter Day is very beautiful, so is Irish Fireflame, and they are both good growers. We have one here called Firebrand, which is hard to beat as a decorative Rose. It is

the colour of clotted blood, and has the additional quality of being entirely mildew-proof.

"Three Australian-raised Roses are becoming very popular here: Miss Marion Manifold, a red climber of vigorous growth; Jessie Clark, a single climber; and Rosy Morn, a bush Rose, very vigorous, with rather flat flowers of a pleasing shade of pink and very sweetly scented. Mme. Edouard Herriot is perhaps the most popular Rose at the present time, not only on account of its colour, but also owing to its good growing and flowering properties. Cut a bloom before it opens, and it will last a considerable time in water, and by the time it has faded there is another bud ready for cutting. William Cooper as a red Rose is one that will take a leading place in our gardens, and will be grown as a bedding Rose everywhere. By the way, this Rose is also good for exhibition when well grown. Mrs. Andrew Carnegie is doing well this year, and has given a fine lot of flowers. It wants a rather exposed situation, so that while in the bud stage it can be kept dry, otherwise it does not open well. Mrs. Charles E. Pearson is well worth growing for all purposes. Queen Mary is a delightful colour, and is one that everybody wants. It is a pity that it has such a weak neck and hangs its head. Florence Forrester is a fine large show bloom, and what a great grower it is! Mrs. Ambrose Ricardo is a good doer, but so far the colour is a disappointment. Honey yellow conjures up thoughts of something good,

but so far I should say the colour was white, flushed pink. The form and shape are all that can be desired. Mrs. George Norwood certainly has a sweet scent, but the colour is against it. When H. V. Machin gets the 'smell of the salt water' out of its buds (becomes acclimatised), it will be a really good flower and one that can be depended upon. I even venture to say that George Dickson will have to go back one for it. The stout, stiff peduncle is the thing that makes or mars a flower, and this Rose has it stout enough for anything. Coronation (Hybrid Perpetual) has done well this season, and will continue to be popular. Sachsengruss has flowered well, in spite of its name, and has been shown more times than any other new Rose."



ROSE MME. EDOUARD HERRIOT.

Barbier. This is one of the good things that I appreciate also, and find that it is all that he says it is, and more. Here with me it is almost a continuous bloomer, and as for growth, there is nothing to beat it. At the same time, there are a few other Roses of the same class that go well with it. Shower of Gold is a good grower and blooms very freely, and its glorious glossy green foliage when growth is active is enough to make one wish to plant it everywhere. The growths are enormous, and it is one that can be used for any purpose, such as for arches, pergolas, or trailing over a bank. Let 'H. G. B.' try it, and I am sure he will appreciate it. Another Rose is the Gerbe Rose. This has only come into my hands during the last few years,

COTONEASTERS.

THESE are very cheerful shrubs for winter effect, and few plants contribute so much to the brightness of the garden during the dull months as these splendid shrubs of the Rosaceæ family. The dwarf varieties are particularly useful for grouping on the rock garden, the taller varieties being equally valuable for brightening up the shrub border. The evergreen kinds produce masses of white Hawthorn-like blossoms from April to June, which are followed by brilliant-coloured fruits. Most kinds are of easy culture, thriving in good ordinary garden soil. The following are a few that I have noted and consider worth growing:

Applanata.—A deciduous kind with the top of leaf dark green and the under side grey; the fruits are very freely produced and of a brilliant scarlet colour.

Adpressa.—Suitable for the rock garden. Of dense spreading growth, with bright red fruits which ripen in August.

Buxifolia.—An evergreen species, producing white flowers which are followed by crimson fruits; close-growing, Box-like, shining green foliage.

Francheti.—An evergreen kind, with orange shaded fruits which are very attractive at the present time.

Frigida.—This deciduous species is most suitable for growing over stonework; the bunches of pretty red fruits are very freely produced.

Horizontalis.—The bright vermilion fruits of this kind are nearly hid by the dense growth of the leaves. The horizontal spreading habit is very attractive, and it is deservedly popular.

Henryi.—A recent introduction with distinctly veined and channelled, shining green leaves, producing rich crimson orange shaded fruits very freely.

Pyrenaica.—Of dense spreading growth; the deep crimson stems are very attractive. This should certainly find a place on the rock garden to hide large bare stones.

Thymifolia.—Interesting on account of its dwarf habit and closely arranged, deep shining green leaves.

These are only a few of an interesting family, and



ROSE MRS. ANDREW CARNEGIE.



ROSE QUEEN MARY.

may be raised from seeds sown when ripe, by layering, or by cuttings of the old wood taken with a heel in the autumn. J. W. FORD.

BRITISH OAKS.

THE writer of the note on our British Oaks in a recent issue of THE GARDEN (page 4) omits all reference to the important foliage characters by which the two species may be distinguished from one another without difficulty.

Quercus sessiliflora can best be identified by the presence in varying quantity of multiple or stellate hairs on the lower surface of the leaves. These hairs can easily be made out with a lens. In *Q. pedunculata* the leaves are perfectly glabrous and, moreover,

exhibit two little reflexed ears or auricles at the base of the lamina. In *Q. sessiliflora* these auricles are absent, the leaf in typical examples tapering to the petiole, which is often half an inch long. In *Q. pedunculata* the leaf is shortly stalked or often nearly sessile. The length of the peduncle is variable in both species, and cannot be relied upon as a safe guide. On the other hand, *Q. pedunculata* has sometimes acorns with stalks only half an inch long, but they are rarely sessile.

The habitats of our two Oaks are more or less distinct. *Q. sessiliflora* is a characteristic tree of the hilly districts, occurring on shallow, chiefly non-calcareous soils. I have seen it on Axe Edge above the Goyt Valley at 1,200 feet altitude. *Q. pedunculata* is the typical tree of the lowlands, being abundant on deep clays and marls. It is the dominant tree in Oak woods and plantations in the South of England.

In the North and West *Q. sessiliflora* is frequently the only Oak found. In the South and East of England it occurs on dry, sandy and gravelly soils, and is then often associated with *Q. pedunculata*, as in Park Wood, Ruislip, Middlesex. Under these conditions a fertile hybrid is produced, and this hybrid Oak is of widespread occurrence where the two species are found together. It is the occurrence of this hybrid as well as the varying length of the acorn stalk in both *Q. pedunculata* and *Q. sessiliflora* which has accounted for the confusion between our two Oaks, and has led to the opinion expressed by some botanists and foresters that there is only one species indigenous in the British Isles. A. BRUCE JACKSON.

THE MAKING OF GARDENS.—I.

By G. DILLISTONE.

IT is perhaps a truism to say that the good gardener is, like the poet, born, not made. But many excellent gardeners lack the technical knowledge requisite to produce a good design, or, even though they may have a fairly clear perception of what the best treatment for any particular site should be, are without the necessary knowledge of how to put their theories into practice and develop their ideas in a practical manner.

It is to give some general directions as to how this may be done that the present series of articles are written. It is proposed to take the reader through all the stages of the gradual development of a series of gardens, starting with the surveying of the newly acquired land and plotting same,

It will be found, however, as we proceed, that it is all necessary to those who wish to possess the knowledge requisite to develop their own ideas and schemes.

THE SITE UNDER CONSIDERATION.

Before proceeding with the actual work of surveying, it will be as well to examine the plan Fig. 1 and notice what are the principal features shown thereon, and also understand what the various marks mean.

First.—It will be seen that the largest field shown (No. 1) has a considerable frontage along the main road, Letworth to Mervale.

Second.—That there is another road to Kemborne, turning out of the main road at an important

Seventh.—Certain suggestive lines are made by an existing cart road, the lines of hedges, &c., that may or may not be of use in the development of the plan, but are well worthy of notice.

Eighth.—By comparing the few levels that are given, it will be seen that the general tendency of the land is to fall from north-east to south-west, and always towards the stream.

This is sufficient information upon which to proceed to survey the land for garden purposes. Next week I propose to give directions for taking a survey of the estate.

CHILIAN PLANTS IN SOUTH - WEST SCOTLAND.

By S. ARNOTT.

THERE has been much to interest dwellers in the milder parts of the United Kingdom, who are fond of the more tender Chilian shrubs, in the articles on the subject which have appeared in *THE GARDEN*. I am certain that the notes by Mr. E. Walters on page 42, January 22, will act as a stimulus to the cultivation of the subjects mentioned there. It may be of value to readers if they can learn the behaviour of these plants in the South-West of Scotland. It may be mentioned that the West Coast of Scotland is highly favourable to the cultivation of plants from Chile. Even places some distance from the sea share this advantage, although, as may be expected, in a lesser degree than the gardens close to the sea. To begin with

Abutilon vitifolium.—There are not many gardens in the South-West of Scotland where this has been tried, and the best specimens I have seen in Scotland in the open are in Wigtownshire. One very fine specimen in the gardens of Mr. Kenneth McDouall, of Logan, Wigtownshire, stands,

I think, pre-eminent for its size and beauty. In that favoured garden *Abutilon vitifolium* is truly very fine. There are a few other plants to be met with elsewhere. It is much prettier when not grown as a wall shrub, although it is better in a sheltered situation. I may say that I lost it one hard winter in my former garden, close to the upper reaches of the Solway. I can yet recall the pleasure I received from first meeting with this Vine-leaved *Abutilon* at Mount Usher, County Wicklow, many years ago.

Aristotelia are not often met with here, although hardy enough to stand the climate. Flowering shrubs are greater favourites than those cultivated for their foliage.

Azara microphylla is fairly hardy, and there is a very fine plant of this in the garden of Mr. D. W. R. Buchanan, at Corsewall, Wigtownshire. This is the tallest and finest specimen of this *Azara* that I know in Scotland. I have grown it for some years, and I consider it almost, if not quite hardy on a wall at least; though it is



FIG. 1.—PLAN OF MERVALE HALL ESTATE AT THE TIME OF PURCHASE.

the preparation of the plan, with detailed discussion of the reasons for adopting one idea in preference to another, and finally the planting. It is intended that every possible branch of modern gardening should be touched upon, and that the actual constructional work should receive just as much attention as the choice and planting of the various trees, shrubs, &c., used.

The scheme is to take the site depicted in Fig. 1, this being a plan of a portion of an estate much as it would appear if enlarged from an ordnance survey map, which, by the way, frequently omits many particulars that are of the utmost importance in the creation of gardens. The plan presented has been sketched more or less at random, as I want to meet the difficulties as they arise (and would arise in any ordinary situation), and discuss the means by which I suggest they should be overcome in detail. The earlier articles will of necessity be somewhat technical in nature, and may to some extent go outside the province of gardening, in the generally accepted meaning of the word.

point on the estate near the bridge, which is at the bottom of a hill.

Third.—By comparing the levels along this road, which are shown by figures denoting the height in feet above mean sea level. Thus, the point 486.00 is 16 feet above the point on bridge marked 470.00 and 8 feet above the point at Letworth end marked 478.00. These facts are very important, as will be shown later.

Fourth.—There is a stream of water passing north to south along the western extremity of meadow No. 1, and turning west to east in meadow No. 4; thence through a pond of considerable area it continues its course towards the south-east.

Fifth.—There is a small house situated in one corner of field No. 2.

Sixth.—There are several trees of importance, not only in the hedges, but also in a coppice and in various positions in the meadows. These trees will exercise a very potent effect on the development of the design.

prettier in the open, as it appears in some South-West Scottish gardens.

Berberis Darwinii is hardy, and is, as your contributor says, "one of the most beautiful evergreen shrubs we have." It is fairly plentiful in the best gardens in the South-West.

Desfontainea spinosa is also fairly plentiful, and generally stands our winters well. In some seasons, however, when a wet autumn is suddenly followed by severe frosts, it may succumb. Some years ago a clergyman asked me if I had ever seen "a Holly with yellow and red flowers." I informed him that it must be a *Desfontainea*, and, on receiving a branch, it proved to be *Desfontainea spinosa*, as I expected. It is to be met with in a good many of the best gardens in the South-West where the more tender shrubs are cultivated. It objects seriously to a low position, and stands the winters much better in the higher parts of a garden and against a wall.

Eccremocarpus scaber (syn. **Calampelis scaber**) is a great favourite of mine, and I am pleased to see that your correspondent speaks so favourably of it. In some gardens here, as Mr. Walters remarks, it "frequently comes up from the base year after year without protection of any kind." It is, however, not absolutely reliable, but comes so easily and quickly from seeds that



THE HARDIEST OF THE ESCALLONIAS: A FLOWERING SPRAY OF *E. PHILIPPIANA*.



FABIANA IMBRICATA IN FULL BLOOM.

it can be easily replaced, should it die off. I have known it to make growths from the old stems when against a warm wall, as well as start from the base, but a very hard winter is generally fatal to it except in the mildest gardens close to the sea in this district. The rose-coloured variety, *E. scaber roseus*, is quite a nice change. Some old-time gardeners were wont to preserve the *Eccremocarpus* in winter by lifting it and storing the roots in dry sand. As it can be raised from seeds to bloom the first season, it is hardly worth while to do this. It is a slender, graceful climber, with attractive orange red flowers.

Ercilla or **Bridgesia spicata**. — I know this does well in the South-West of Scotland, and I have even had it sent me to name from a garden much further North and a little from the sea. It is fairly hardy if in a sheltered position.

Escallonias. — I know of a few gardens

where *E. macrantha* grows splendidly and flowers annually, standing the winters well. These are mostly, however, near the sea, and I do not think that it is a good inland shrub for this part of the country. *E. langleyensis* is hardier. *E. philippiana* is the hardiest, and succeeds even where *E. macrantha* is a failure.

Eueryphias are mostly represented by *E. pinnatifolia*, of which there are now some fine specimens in the South-West of Scotland. The best I know is in the garden of Mr. W. D. Robinson-Douglas of Orchardton in Kirkcudbrightshire, where there are many choice shrubs. It is in the open, and has for quite a number of years been a striking ornament to the place. It flowers freely and is a picture of beauty when in bloom. *E. cordifolia* is not in such large specimens, and is, I think, slightly less hardy.

Fabiana imbricata.—This Heath-like member of the Solanaceæ is wonderfully hardy, and I know of a few good plants. Even away from the South-West it does well on a wall, and there has been for years a specimen on the wall in front of the Terrace in the Royal Botanic Gardens, Edinburgh. It blooms freely and gives an abundance of its tubular, white flowers.

Lippia citriodora.—The Lemon-scented Verbena is occasionally to be met with in the open, but always on a wall, and best when protected by a glass coping. I know of a few plants, and these are highly pleasing with their fragrant flowers.

Pernettyas.—It almost goes without saying that the *Pernettyas* are generally hardy in the South-West of Scotland, and that they are very beautiful, especially when in fruit. I know of many plants which have been established for a very long series of years.

There are some specially fine gardens with shrubs in the South-West of Scotland. Those mentioned in the foregoing notes are among the best, but, of course, such gardens as those of the Earl of Stair, at Lochinch Castle; Sir Herbert Maxwell, at Monreith; and Mr. Wallace, at Lochryan, Cairnryan, are specially rich in the more tender shrubs from Chile and other parts of the world.

ARTIFICIAL AIDS TO
DAFFODIL FERTILISATION.

IN reply to the Rev. G. H. Engleheart's request that I should state whether I have recorded any actual, proved, results from having "anointed the stigmas of shy seeders with a preparation to induce and stimulate the growth of the pollen tube," I must point out that the matter is as yet necessarily in the experimental stage, and that much has yet to be done in the direction of recognising, and eliminating, possible disturbing agencies before a definite pronouncement of a "proved" result can be made. So far as the matter has gone with me, it stands in the position of gathering statistics and data from which, later on, one may be able to say with some sort of confidence that the results are *propter hoc*, and not merely *post hoc*. But I have no hesitation in placing before Mr. Engleheart my statistics up to date. I will take the case of Empress as an example, as its character as a "shy seeder" is so well known; and, as to that character, I will again quote—if I am not too greatly shocking Mr. Engleheart by so doing—Messrs. Cartwright and Goodwin's little brochure, "The Latest Hobby." On page 34 they say:

"A friend of ours who lives in the South, and devotes a lot of time to crossing Narcissi, writes to us as follows: 'Empress and the Camms are no use, and I never employ them now. The result of fertilising Empress, largely, for several years, was a total of three pods, each containing one seed.'" Also that "Mr. Engleheart states that he has obtained seed from it in some quantity."

But this is rather vague. Anyway, there stands the generally accepted view of the obstinacy of Empress.

With the foregoing I will compare my results, and I take the year 1915. I pollinated Empress, not "largely"—in fact, only eighteen blooms all told—eleven of them with the "preparation" and seven without.

The results were these:
Without "preparation."—Nil.
With "preparation":

Cross.	Date of Pollination.	No. of Seeds.
Empress x Chanda ..	April 15 ..	1
„ x Sunrise ..	„ 17 ..	7
„ x „ ..	„ 17 ..	5
„ x „ ..	„ 17 ..	2
„ x (? name of variety) ..	„ 18 ..	2
„ x a white trumpet ..	„ 19 ..	5
„ x „ ..	„ 22 ..	3
Total, seven flowers bore seed ..		25 seeds.

Be it understood, I do not yet claim that the result is due to the "preparation," but I continue to use it because of these results. Whether it is the *propter hoc* or *post hoc*, time and further trial alone will show. I have given Mr. Engleheart the fullest answer that I can give him up to date. And, now, as to the *rationale* of all this. Mr. Engleheart tells us that twenty years ago he proved that pollen will grow in a weak solution of water. That has been known for a longer time than twenty years. But he states that this method gave negative results with him; in fact, it failed. And he suggests that it was so because



EUCCHARIS x LAWRENCEÆ WITH GRACEFULLY DROOPING FLOWERS OF PUREST WHITE.

the pollen grains, so treated, "found the required sugar on the surface, so did not trouble to seek it by penetrating deeper." But I venture to suggest that this explanation is not based on a real appreciation of the *modus operandi* of the pollen grains. These do not, in fact, penetrate the style at all, but it is the "pollen tube," the outcome of the growth of the protoplasm within the cellulose induced by the moisture, or the "stimulant," on the stigma, which pollen tube, first creeping among the papillæ of the stigma, goes down between the lobes and penetrates the style *en route* for the ovary; the vegetative nucleus taking the lead, followed by the generative cell. And these would in any case scarcely be stopping to seek sugar on the surface of the stigma, or hoping to find it on the downward journey,

It has been proved that a 10 per cent. solution of sugar water will cultivate the emission of the pollen tube to the effective pollination of the flower in the case of *Lilium candidum*—I believe that this is recorded in Scott's "Structural Botany"—and why should a treatment thus successful induce a directly contrary result in the case of the *Narcissus*? Possibly Mr. Engleheart overdid the "anointing," which is quite easy.

Admittedly sugar is the basis of all probable "preparations," but there are two kinds of sugar which are not identical in chemical constitution, and Mr. Engleheart does not tell us which kind he used. There is the grape sugar, a glucose, which has the formula $C_6H_{12}O_6$, and cane sugar ($C_{12}H_{22}O_{11}$), either one or other the indirect product of starch ($C_6H_{10}O_5$); and there is a body called formic aldehyde (CH_2O) which also provides an item in the intermediate stage. Nature in its operations is very exacting in its requirements, and Mr. Engleheart may not have made up his sugar concoction according to the correct prescription. Anyway, he seems to have failed.

I must be excused if at this early stage I do not state the exact nature of my so-called "preparation." Sugar is at the base of it, with two other ingredients; but up to the present time nothing can be stated as "proved" one way or the other. The idea suggested may "end in smoke"—or it may not. Such things are interesting, and are worth trying even on a merely speculative basis—and we are living in an age of tentative experiment. NOVICE.

NEW AND RARE
PLANTS.

AWARDS OF MERIT.

Eucharis x Lawrenceæ (E. richardiana x E. burfordiensis).—Hybrids or cross-breeds of this valuable race of stove bulbous plants are not common; hence the above, raised at Burford by Mr. W. Bain, gardener to Elizabeth Lady Lawrence, created a good deal of interest. E. richardiana—which, by the way, we do not know—is said to be like a small-flowered E. grandiflora, and was the seed parent; E. burfordiensis, itself a hybrid of importance, being the pollen parent. The great leaning of the new-comer, though quite distinct, is towards the last named; the gracefully drooping flowers of the purest white appearing, half a dozen or so, in a tall scape. Internally they are stained with green, both character and artistic bearing being imparted to the flower by reason of the pointed and decidedly undulated perianth segments. It is said to be of the easiest cultivation and very profuse in flowering; hence a greater value attaches to a plant of no mean merit. We welcome it both as an addition and an acquisition.

Columnnea gloriosa discolor.—A beautiful and well-flowered example of this trailing, rarely seen member of the Gesneraceæ was shown. The soft downy leaves of an inch wide and $1\frac{1}{2}$ inches across are closely set on the trailing branches, the hooded flowers of a brilliant orange scarlet. Shown by Elizabeth Lady Lawrence, Burford (gardener, Mr. W. Bain).

Iris Little Bride.—A hybrid bulbous Iris of unknown parentage. Virtually, however, in flower it may be likened to an albino form of *I. reticulata*, though in minor details it is distinct. The falls are whitish, with a narrow median ridge of golden yellow; standards pale blue. It is as good as it is distinct. Shown by Messrs. Herbert Chapman, Limited, Rye.

Cattleya Trianae Roebling's Variety.—The sepals and petals are broadly ovate, of large size, rosy pink in colour, with heavy central purple blotch as the extremities are approached. The widely expanded lip is of rich purplish crimson, with yellow throat. From Messrs. Charlesworth and Co., Hayward's Heath.

The foregoing novelties were before the Royal Horticultural Society on January 25, when the awards were made.

EXHIBITION VEGETABLES

V. UTILITY.

BY EDWIN BECKETT, V.M.H.

UNDER the above heading, on page 33 of *THE GARDEN* for January 15, "Observer" refers to the correspondence which has lately taken place in these pages on exhibition vegetables. His contention is based upon the action of the Royal Horticultural Society, which for the past two or three years has arranged a special class and offered special prizes for a collection of vegetables. This class has been adjudicated upon by special judges, the idea being to favour those specimens which are considered by them to be of most value for daily use.

Now, there is no reason why the Royal Horticultural or any other society should not, if it thinks well, offer tempting prizes for such classes, which are certain to be well contested. This, however, does not alter the fact that there is room both for large and small specimens of vegetables of the highest quality in almost every household. For instance, who would deny that a large Potato is infinitely superior to a small one for baking purposes, or a large Onion above a small one either for boiling or baking whole? Asparagus is generally looked upon as very poor unless large heads are produced, and I may say the larger the better; and who would not prefer a large, well-flavoured Marrowfat Pea to a smaller one? The same holds good for the vast majority of vegetables.

As one who has taken a special interest in vegetable culture, no one can ever accuse me of favouring coarseness. The highest quality has always been my aim. By growing the various kinds of vegetables under the best possible conditions, they reach maturity far more quickly, the result being superior quality.

May I ask, Does not this apply to nearly everything cultivated for exhibition purposes? The highest cultural skill is generally brought to bear when anything approximating to perfection is

obtained, whether it be plants, cut flowers, fruit or vegetables. There is little doubt that so long as horticultural exhibitions are held, the exhibitor who puts before the public the most worthy objects is certain to get his reward. I have always contended that the exhibitor who can produce the largest specimens can be equally successful in supplying smaller ones, and this was fully emphasised at the exhibition to which "Observer" refers.

The first and second prizes were won by two of our most successful exhibitors of vegetables. This proves beyond a shadow of a doubt that both of these exhibitors, and many others with whom I am acquainted, can generally supply what is asked for, which is by no means always the case with those who content themselves with simply growing ordinary vegetables in the ordinary way.

THE GREENHOUSE FOR FOOD SUPPLY.

Starting a Vine.—It will be found a good practice for those who wish to force vegetables and fruit under glass to start their Vines at the beginning of the year. The heat then used for the Vine will become available for pushing along other subjects. From Vines started at the beginning of the year we may without undue forcing get ripe Grapes towards the end of June. Even if we do not know of any pests on the Vine or in the house, it is a safe preventive measure to give both a good cleaning. The loose bark may be peeled off the Vine rod when it is known that mealy bug is present, or when there has in a previous season been an attack of red spider. The rod is painted over with Gishurst Compound, used according to directions. The house is then well washed with strong hot soapy water, syringed off with clear water. The border will also need attention. Any manure which may have been left on from a mulching of last year will be raked off. If the soil seems to be unduly dry, it should be watered at once. Unless specially in need, it might better be left until the top-dressing has been put on. It is a good plan to remove from the border the top inch or 2 inches of soil. This is done by pointing the border over with a fork to loosen it, taking particular care not to damage the roots, which, let us hope, will be quite near the surface. The top-dressing added may be made up of turf which has lain in a stack for some months, bone-meal, and some good fertiliser, such as Le Fruitier or Thompson's Vine Manure. As regards the quantity to add, in the case of all proprietary manures it is best to adhere strictly to the directions supplied by the makers. A bushel of bone-meal may be used to every three barrow-loads of loam, while sufficient sifted mortar rubble should be added to make the soil nicely open. When well mixed by not less than six turnings, the compost may be evenly spread all over the border. This concludes the preparation of the house and rod for starting. We now have to consider the routine treatment.

It is usual to keep the house somewhat closer during the fortnight preceding the date of starting. Then at the time of starting we may turn on sufficient heat to keep the temperature up to 50° by night, with an increase of 5° to 10° by sun-heat during the day. Each morning the border

should be damped with a can bearing a sprinkler, and the rod should be syringed with tepid water. The same operation will be performed early in the afternoon. This is done to induce the buds to swell and break into growth. The reader must use his own judgment as to whether damping is needed quite so frequently. If the floor is seen to be already damp, we might confine ourselves to spraying the rods.

Very little ventilation will be needed, though when the weather is warm and the thermometer has a tendency to rise above 60° , some air may be admitted at the top of the house. A mere inch or 2 inches will often be quite sufficient. This should be taken off not later than 2 p.m.

W. F. ROWLES.

SHOULD THE PRUNING WOUNDS OF FRUIT TREES BE DRESSED?

SOME remarkable conclusions have been arrived at as the result of a number of experiments on the effect of various dressings on the pruning wounds of fruit trees. Fruit growers have long used paints, tars, waxes and other substances as coverings for wounds of trees, but Bulletin No. 396, issued by the New York Agricultural Experimental Station, seriously questions the advisability of this practice, as may be seen from the following conclusions.

"When one comes to deal with practices going back several hundred years, as does the covering of pruning wounds with protective dressings, care must be exercised in drawing conclusions. But from the results of this experiment several deductions seem quite warranted. First, the dressings commonly applied to pruning wounds retard rather than accelerate the healing of the wounds. Second, the effects are the same whether the dressings are applied when the wounds are made or some weeks later when the cut surface has dried out. Third, the effects of the dressings used are so injurious to Peach wood that wounds on Peach trees should never be covered. Probably this statement holds true for other stone fruits as well. Fourth, these experiments suggest that the popular notion that wounds need to be covered with some dressing to prevent the entrance of fungi, in sprayed orchards at least, is usually exaggerated. It is doubtful if it is necessary to attempt to prevent decay by applications of dressings of the kinds under discussion in wounds under 4 inches or 5 inches in diameter. It remains to be proved whether they have any real value in covering large wounds. It may be suspected that the injury caused by the dressings when applied to the wounds largely, if not wholly, offsets, or even overbalances, the protection offered, if there be such, against decay.

The substances used as coverings were white lead, white zinc, yellow ochre, coal tar, shellac and avenarius carbolineum. The dressings of these materials were applied when the pruning was done at different seasons of the year and upon wounds of various ages. Coal tar not only caused injury but quickly disappeared, either through absorption or evaporation.

White lead and white zinc caused some injury at the time of application, but the wounded tissues recovered rather quickly and at the close

of the first season the injury was not very marked; at the close of the second season it had nearly disappeared. These two paints," says the Bulletin, "are the best of the protective substances used, and of the two, white lead is the better."

EXTRACTS FROM LAST YEAR'S NOTEBOOKS.

(Continued from page 55.)

BY THE REV. JOSEPH JACOB.

Sisyrinchium californicum.—Nothing appealed to me more in the beautiful rock garden at Earham Hall, near Norwich, than this small Satin-flower. The colony looked like a collection of dwarf pale, rather wide open Buttercups. The plants were about 5 inches or 6 inches in height, and had delicious, fresh-looking foliage. One can imagine several appropriate names that might well be given it to describe its early morning habit of opening its blooms. "Get-me-out-of-bed" would be one, for it shares with the Sun Roses the property of being at its best before 10 a.m., after which hour the blooms begin to close.

Lobelia cardinalis De Breusen.—This is quite one of the most taking of these tall-growing Lobelias. It has bright rose coloured flowers and reddish foliage. Messrs. Bath had a fine display at the Royal Horticultural Hall one Tuesday last August. It must be lifted in winter, like Queen Victoria or Gloire de St. Anne's.

Rosa Moyesii is like certain fortunate ladies who always look their best. From the time that its Burnet-looking leaves are unfolded until the last hip falls in autumn it is full of interest. It has most fascinating ruby carmine single flowers, followed by large pear-shaped fruits. I am told it should be grown as a bush and be but little pruned.

Chrysanthemum Aphrodite is what is known as an Anemone-flowered Chrysanthemum. It has, however, its ray florets much longer than they are in the older type. It was decidedly one of the most attractive at the Chrysanthemum Show, being a pretty rosy mauve self and having the double advantage of being equally effective in either a budded or disbudded state.

Dahlia Crawley Star.—This was the first of Messrs. Cheal's new Star type of Dahlia, which I think I am right in saying is the "latest out" in that most diversified tribe, later even than the Anemone-flowered from France, samples of which were to be seen on Mr. J. B. Riding's stand. Crawley Star is rather loosely built, single, with two or three rows of pink petals with a zone of rich crimson round the central boss. Excellent for cutting.

Perpetual-Flowering Carnation Chelsea.—Those who are all for selfs will not like this as I do. These speckled varieties invariably appeal to me; so to end my list, this, which is about the best of them all, must go down. Once upon a time I would have called it a white-ground Picotee. So it is still, only the rose colour is not confined to the edges of the petals, but is scattered all over them. A lady would call it a sweet flower; a man might say it was dainty.

Here endeth the extracts from my five notebooks:

"Be she fairer than the day,
Or the flow'ry meads in May,
If she be not so to me,
What care I how fair she be?"

—G. Wither, in "The Shepherd's Resolution."

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Melons.—The seedlings ought never to become potbound, so, if they are large enough, they may be planted in their permanent quarters. The bed, consisting of leaves and stable litter, must be made firm, and brought within 2 feet of the roof glass. When the temperature is about 80°, small mounds of turfy loam should be placed on the surface at intervals of 4 feet. Give a watering with tepid water after planting, and maintain a temperature of 70°, with a few degrees lower at night. The atmosphere must be kept moist and the plants sprayed twice each day. Where a succession of fruits is desired, it will be necessary to sow a few seeds about every month or three weeks.

The Kitchen Garden.

Herb Beds.—Herbs are often required, and now is the time to make new beds, as it is not advisable to allow the plants to remain on the same piece of ground for an indefinite period. The soil should be dug deeply, and given a dressing of well-rotted manure.

The Rose Garden.

Ramblers.—Roses belonging to this section should be looked over, and as much of the old wood as possible removed, retaining the strong, young growth of last season. They are ideal for pillars and pergolas, and when such work as pruning is carried out, they should be entirely removed from the poles and retied with new tarred twine. Old and worn-out specimens should be replaced as the work proceeds.

The Flower Garden.

Seasonable Remarks.—During the present month all shrubberies and borders should be cleared of all weeds and made tidy for the spring. In the rock garden all weeds and rubbish must be collected, and the early flowering plants watched to prevent slugs devouring them. Beds and borders devoted to annuals may be manured and dug, and such plants as Azaleas may be given a top-dressing of manure or loam and peat. Being more or less surface rooting, a top-dressing is very beneficial, and will help the plants to successfully withstand periods of drought later on.

The Hardy Fruit Garden.

Currants and Gooseberries.—The pruning of these trees should now be finished, and the ground may then be forked over, taking care not to injure the roots. Red and White Currants may have all their side shoots cut back to two or three buds, and the leading growth left 8 inches or 9 inches in length. Gooseberries should be well thinned, and have all the long shoots cut back.

Plants Under Glass.

Bouvardias.—These should be propagated without further delay. Stock plants already cut back may be placed in heat, and if syringed over occasionally with tepid water they will soon furnish young shoots suitable for cuttings. Insert them in sandy soil, and place the pots in the propagating-frame.

Chrysanthemums.—The earliest batch may be potted off in 3½-inch pots, and then arranged on a cool base near the roof glass. A frame or pit where frost is excluded will suit them admirably. Avoid overcrowding, admit plenty of air, and do not let the plants suffer from drought.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)
Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Spinach.—Winter Spinach will be greatly benefited at this time if on a fine day the soil between the lines is stirred with the hoe and a light dressing of nitrate of soda given. A sowing of Summer Spinach should also be made, and successional sowings put in at intervals to suit requirements. Seeds sown later than the middle of April, however, do not, as a rule, succeed unless sown in a cool, moist place, for on hot, dry situations the plants run rapidly to seed. This vegetable

is not in much demand when plenty of Peas and Cauliflowers are coming in.

Celery.—A first sowing may be made in boxes and placed in a temperature of 50° to 60° to germinate. Care must be taken not to overcrowd the seedlings or give them any check, as this is sure to result in a premature running to seed. A month hence will be soon enough to sow for the main crop which is required to keep up the supplies till the following March.

Horse-Radish.—This is a crop which is often found in some out-of-the-way corner and given little or no attention except a periodical visit to dig up a few roots; but if good, serviceable roots are expected, it must have, and well repays, a little attention. The present is a good time to make a fresh plantation. The ground should be deeply trenched and heavily manured. Pieces of the roots that were found too small for kitchen use may then be planted with a dibble to a good depth in lines about 2 feet apart and 9 inches between the sets. A small portion should be replanted annually; but it is advisable to keep this crop confined to one piece of ground, for the least bit of root left will grow and cause trouble to succeeding crops.

Chicory.—As a winter salad this provides a useful and easily grown subject. The roots only require to be placed in a dark corner of the Mushroom-house, or in large pots on a slight hotbed in the same way as recommended in a previous calendar for Seakale. The Chicory will be ready for use in three weeks to a month.

The Fruit Garden.

Gooseberry and Currant Cuttings.—If these were gathered and prepared as recommended in an earlier calendar, they should now be planted in rows and the soil made moderately firm. Those put in a year ago will be ready to transplant, and should be given sufficient room to enable them to stand for another two seasons. Permanent plantations may also be made from three year old plants. In preparing new fruiting quarters it is a good plan to add a quantity of fresh loam, especially in old gardens that have had a surfeit of farmyard manure. Guard against the ravages of small birds on the buds of the Gooseberry bushes. I think the spraying with lime sulphur early last spring served to check their attacks. Small plantations can be successfully protected by means of black cotton threaded among the branches.

The Flower Garden.

Dahlias.—For ordinary decorative purposes I prefer to start the roots of these at a much later date, and when 1 inch or 2 inches of growth have been made, divide them into the requisite number and pot them up into 6-inch pots; but where large quantities are required from a small stock of roots, these will have to be increased by cuttings, and a longer season is therefore necessary. The roots should be placed in a warm house now, and when the shoots are 3 inches to 4 inches long they should be removed from the tuber with a sharp knife, inserted in small pots of light, sandy soil, and placed in a close propagating-frame until rooted. The Collarette varieties do not divide well, and should always be increased by cuttings.

Seeds.—Seeds may be sown now to produce flowering plants in autumn. Sow also such subjects as Ricinus, Eucalyptus, Wigandias, Acacias and Verbenas.

Climbing Roses.—The pruning and training of these on walls or espaliers should not be much longer delayed, as those in sheltered positions are beginning to move and are easily injured. Remove as much of the old wood as possible and retain young, well-ripened shoots, cutting out all weak growths. Usually a quantity of the old flowering wood is cut out in autumn; this enables the young growths to ripen well and be better able to stand severe frosts. Bushes that show signs of exhaustion should have the surface soil removed down to the roots, and this replaced with good loam and farmyard manure.

THOMAS WILSON.

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THE GARDEN.

No. 2308.—Vol. LXXX.

FEBRUARY 12, 1916.

NOTES OF THE WEEK.

The Chelsea Show.—Readers will be pleased to hear that it is intended to hold the Great Chelsea Show, as usual, on May 23, 24, and 25, unless anything unforeseen should occur to hinder it.

Tulip Conference Report.—The Council of the Royal Horticultural Society have decided to issue as a separate publication the results of the exhaustive trial of Tulips held at the Society's gardens last spring. The report will contain lists of varieties of Tulips suitable for various purposes, arranged according to colour.

The Value of Beech Hedges.—For a hedge that is required as a shelter or screen, few subjects are more suitable than the Beech. When clipped annually it forms quite a thick hedge, and as the leaves remain on the plants while they are in a dwarf state through the winter, they are equally as protective as many evergreen subjects, while the rich brown colour of the leaves gives a very warm appearance during the dull winter days.

A Beautiful Shrub for a Warm Corner.—In *Carpenteria californica* we have a beautiful but little-known shrub. Undoubtedly the reason why it is so seldom seen is because it is not perfectly hardy in many parts of the British Isles, and yet, if given a warm spot in a sheltered position, it will become an object of great beauty. In the Botanic Garden, Cambridge, a fine specimen growing against a wall is very beautiful in the summer with its terminal clusters of white, fragrant flowers, which are borne from three to seven together, while the numerous yellow anthers make a conspicuous centre to the flowers. It was first discovered by Colonel Fremont in California in the forties of last century, but it was not until 1880 that it was introduced into Europe.

Iris reticulata in Pans.—Those with whom this charming little Iris flourishes and increases should not fail to put some in 6-inch and 8-inch pans every year. Planted in the second week in August and given all along the protection of a cold frame from which frost is excluded, they will bloom about the middle of January, when

the rich deep blue purple of their flowers is greatly appreciated. Nine bulbs in a 6-inch or fourteen in an 8-inch pan is about the right number to give a good appearance. Their distinctly aromatic scent is often said to be like that of Violets. To us, however, it seems to more nearly resemble a mild edition of that of the ripe fruit of *Cydonia japonica*. In any case it is very pleasant. It is in no sense a dull, heavy scent.

The Cornelian Cherry (*Cornus Mas*).—The month of February often sees the bright yellow flowers of the Cornelian Cherry at their best. It forms a good-sized shrub or small tree, and as it

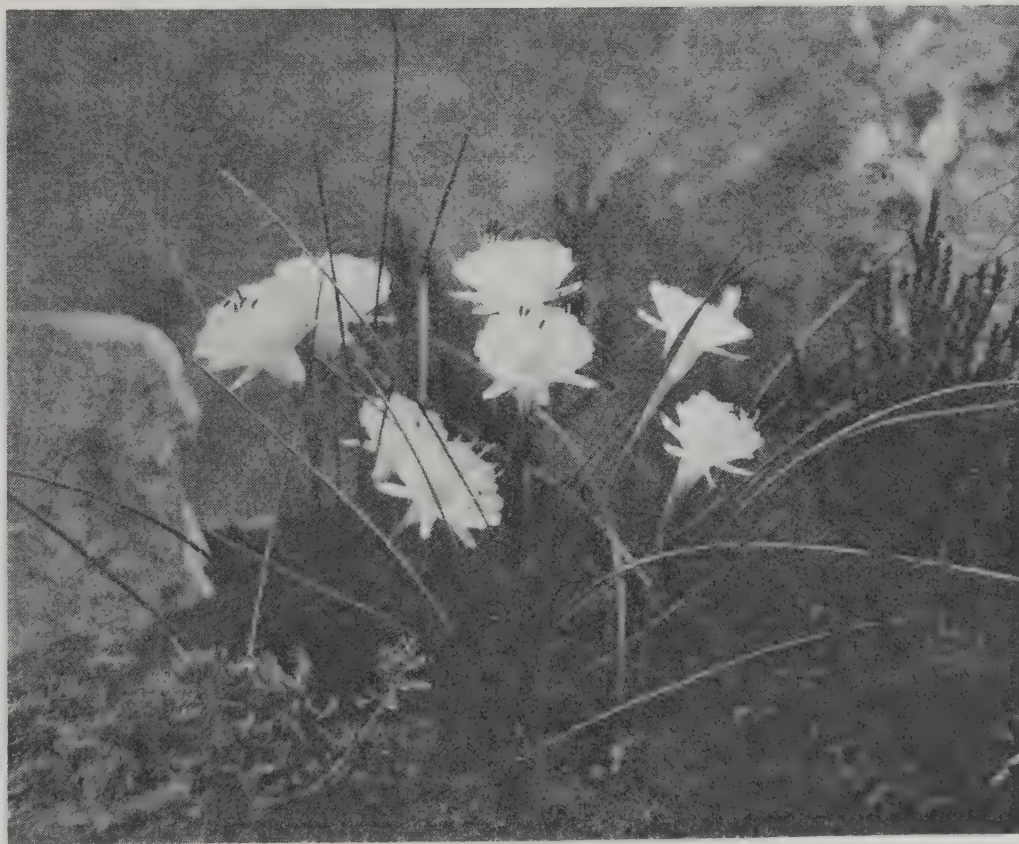
is a kind of preserve. There are several varieties, including a dwarf form (*nana*) and two with variegated leaves. One of these—*aurea elegantissima*—was much sought after about forty years ago, at which time variegated-leaved shrubs were more popular than they are now. In this the leaves have a wide margin of rich yellow, more or less suffused with pink. The variety *variegata* has creamy white markings. The Cornelian Cherry will grow readily in ordinary soil, and flowers best when fully exposed to the sun.

The Hoop - Petticoat Daffodil (*Narcissus Bulbocodium monophyllum*).—Probably for pure,

unsullied loveliness *Narcissus Bulbocodium monophyllum* is the gem of the Daffodil family. It is a tiny kind from Algiers, with flexible, Rush-like leaves and most charming flowers of snowy whiteness. The perianth segments are contracted, small and claw-like, the great beauty of the flowers being unfolded in the expanded trumpet, which is much crinkled; hence the English name, Hoop-Petticoat Daffodil. It is a plant of erratic behaviour in the open garden. The greatest success generally follows upon planting in light, gritty soil in warm, sheltered nooks of the rock garden. It is incomparable as a subject for the cool alpine house. Planted in pans of sandy loam and grown without any fire-heat, it will flower in January, and, as seen in the illustration, the blossoms open free from fault or blemish.

Asparagus Sprengeri.—Annual or biennial sowings of this useful plant should be made in all establishments where small pots of greenery

are used in the house, and where room can be given in the greenhouse to ten or a dozen 3½-inch or 4-inch pots. Sown now in 2½-inch pots (one seed in each), or else in pans and then transferred to 2½-inch pots immediately a second shoot is seen, then in a year's time placed in either 3½-inch or 4-inch pots, most useful little specimens are formed which may be brought into the dwelling-house as required, and later on thrown away when they have grown too large and done their duty. The seed is very cheap. A fourpenny or sixpenny packet will contain sufficient for one sowing.



ONE OF THE HOOP-PETTICOAT DAFFODILS.

is strictly deciduous, the flowers are borne on the leafless branches. Though the blossoms are small, they are freely borne in little clusters, so that when at their best the entire specimen, viewed from a little distance, has a pronounced golden sheen. This is accentuated if the *Cornus* stands out from a background of some dark-tinted evergreen, such as our native Holly. It is a native of the continent of Europe and has been grown in this country for a very long time. The fruit, whence the popular name of Cornelian Cherry is derived, is seldom seen here, but in some parts of the Continent it is freely borne and made into

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Pollen Effect on Melons.—I imagine it is a common practice in gardens to "set" the fruits of Melons with the pollen-bearing flowers of any variety of the same fruit that may be available, and in full expectation that the crossing will have no effect on either the appearance or flavour of the resultant fruit. I have done this very many times—interpollinating such sorts as Syon Perfection, Hero of Lockinge, Gunton Scarlet and Frogmore Scarlet—and in no case has there been any appreciable departure from the normal type in appearance, colour of flesh, or flavour. The Melon-Vegetable Marrow cross seems quite probable, though it could scarcely have any commercial value; but, if effected, the influence of the pollen would be confined to the seed, and not change the flavour of the flesh.—A. C. B.

The Common Snowy Mespilus.—*Amelanchier vulgaris* is a beautiful old garden shrub or small tree which, though not generally grown in gardens, was first introduced more than 300 years ago. It is a native of the mountains of Central and Southern Europe. As usually seen this Snowy Mespilus forms a spreading bush, making a suitable subject for a lawn specimen or a group in the shrubbery border. The flowers are the largest of the genus, being individually $1\frac{1}{4}$ inches to $1\frac{1}{2}$ inches across, the narrow, pure white petals giving it a rather pretty star-like form. The plants mature fruits about the size of Peas, which are black when ripe. Seeds and layering form ready means of propagation. *Amelanchiers* thrive in most soils, being partial to those containing old mortar rubble. The flowering season is the second half of April and the first week in May.

Primulas of Doubtful Hardiness.—In the issues of January 8 and January 22 reference is made to *Primula malacoides* growing in the open, but I should certainly not class it as a hardy plant. Much will depend upon the season, but in most gardens there are positions where it would flower about Christmas time, such as under the shelter of a wall or hedge (especially Yew) facing south, and in protected positions in the rock garden. There are now a number of plants in bloom, and last year they withstood 8° of frost. Old plants are not bothered with, but a pinch of seed is sown in August or September, and for a time the seedlings are grown in pots. The best results are obtained by raising seedlings occasionally; then the old quibble about whether a plant is biennial or perennial vanishes into empty air. *Primula Purdomii* is a somewhat refractory subject, but to me it is the finest of all the race. So far I have not been able to procure a plant, and I should be glad if "B., Weybridge," or any other reader could tell me where seeds can be purchased.—T. W. BRISCOE, *Chepstow*.

Eucryphia cordifolia.—Growing on the grass in the flower garden at Penrhyn Castle is a half-standard tree of *Eucryphia* some 15 feet high. As I saw it in September it was smothered with blossoms, and it was such a fine sight that I wondered why we do not more often see this Chilean subject in our gardens. It is now more than sixty years since it was introduced into this country, yet it is scarce, and for so charming a subject its absence is all the more to be regretted.—E. M.

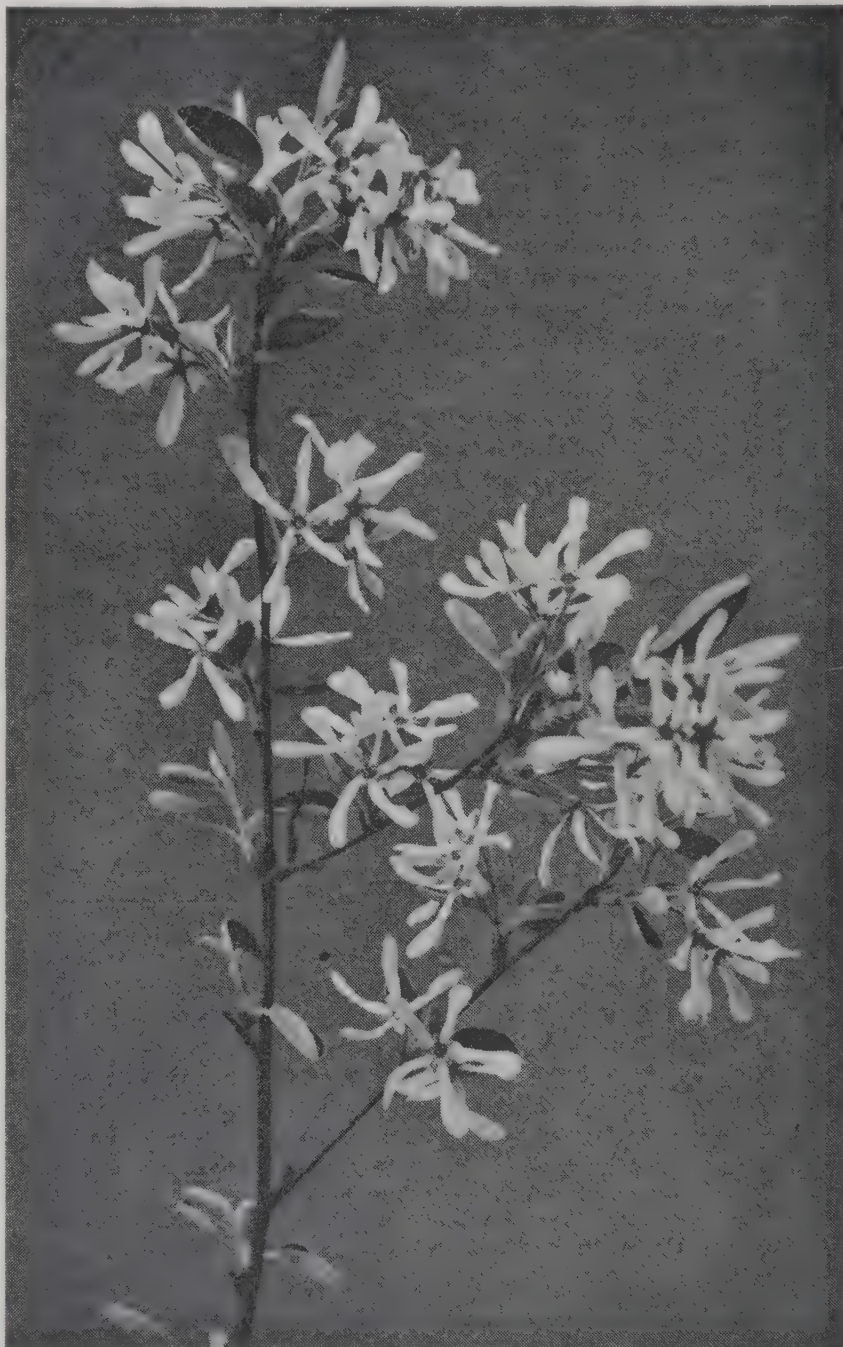
"Capability" Brown.—By a turn of the wheel of Fortune there are two references in *THE GARDEN* for January 29 to this celebrated layering out of grounds, one by myself, in which I refer

a good many things that are "quite unique." Brown was a very successful man of business. He was High Sheriff for Huntingdon and Cambridge in 1770, and before he died in 1783 he had amassed a good fortune, which he left to his son, who afterwards as an important country gentleman sat in several Parliaments.—JOSEPH JACOB.

Training Fruit Trees on Walls.—"H. C.," in his interesting notes in *THE GARDEN* of January 22 on the training of fruit trees on walls, is perhaps a little too emphatic in his notes under the heading of "The Cordon Tree" and "The Purchase of Trees." His notes under the first heading, "Fruit spurs, however, should never be pruned,"

and the axiom in fruit culture which says, "Once a fruit spur, always a fruit spur," need to be treated with caution and reserve. The writer when contributing his notes was undoubtedly bearing in mind the production of quantity in preference to quality of fruit. Fruit growers know too well the inadvisability of allowing fruit spurs to develop year after year, without eventually removing a portion of them, and in some cases the entire removal of such. In the case of cordons, especially when they are making strong annual growth, the continual cutting back of the side shoots, in time, forms an ugly spur, out of all proportion. Again, it is an established fact that on cordons the fruit spurs should be at a distance of quite 8 inches to 9 inches apart, in order to develop fruit of good quality. It is also an established fact that when fruit trees have attained a size commensurate to the production of fruit, twiggy side growths, a few inches in length, terminated by a fruit bud—these in themselves are spurs—are often produced. These should be left and not shortened back, as upon these are produced fruit of excellent quality. After a few years, when other fruit spurs have formed, the twiggy growths should be shortened, or eventually removed in some cases. The continual shortening back of side shoots does—especially with some varieties—produce spurs which are too large to produce fruit of fine quality. Alas! how often one sees on the walls of houses old "espalier" trees producing from the spurs numerous weak growths. These, if shortened, only increase the undesirable size and crowding of the spurs, as well as the production of more weak shoots; when, if some of the huge spurs were entirely removed and some partially removed,

the desired effect would be produced. Under the heading "The Purchase of Trees," the writer goes on to say that "generally speaking, it is best to purchase trees that are from three to six years old." Six years is, from my experience, too old, and I think in every case the tree should not be older than four years to obtain perfect success. The effect on a tree when transplanted is a check, and after the tree has attained a certain size the check is often drastic. In some cases the effect of removal is that fruit buds form all along the shoots, and this is certainly not required in the training of fruit trees on walls. I emphatically state that, without doubt or bias, the best time to plant fruit trees on walls is in their third year.—H. C. E.



AMELANCHIER VULGARIS OR THE SNOWY MESPILUS.

to his partiality for dotting clumps of trees all over his landscapes, and the other in "Notes of the Week" as the planter of the great Vine at Hampton Court in 1769. In this last reference there seems to be an implied suggestion that there was some connection between this Vine and Brown's nickname "Capability." According to Johnson, he had a trick of saying of every place about which he was consulted—and they were legion—that it had great "capabilities." Hence his nickname. This is very likely. I can parallel it from my own experience. Many of my friends and I always speak of a certain public personage as "Unique," for, talk to him or hear him make a speech, you are sure to be told

Should Nerines be Called Guernsey Lilies?

The answer to this question, asked by the Rev. Joseph Jacob, should, I think, be in the negative. If it is wrong and misleading to speak of an Arum as an Arum Lily, surely it is equally wrong and misleading to speak of the Nerine as a Guernsey Lily. Besides, the name Nerine is quite good and easily pronounced. As to Mr. Jacob's concluding suggestion of using the word Nerine only, except where *N. sarniensis* is meant, I do not see the utility of it. Surely no one need bother about *sarniensis*, now that there are so many fine and free-flowering varieties of the Nerine. *Sarniensis* is now of purely academic or botanical interest only. Let it remain a Nerine, or, better still, scrap it. No plant has afforded me such long periods of continuous disappointment as this.—F. HERBERT CHAPMAN.

White Roses.—In the notes on white Roses, by Mr. H. E. Molyneux, issue January 22, page 44, he does not mention the whitest of Roses, viz., *Boule de Neige*.—J. K.

—Mr. Herbert E. Molyneux, in the issue of January 22, page 44, alludes to the legend that the first Rose was a white one. Happening to take up, a few days after reading his article, a volume containing Herrick's "Hesperides," I came, quite by chance, on the following verses, which may interest some of your readers:

"Roses at first were white,
Till they could not agree,
Whether my Sappho's breast
Or they more white should be.

But being vanquished quite,
A blush their cheeks bespread;
Since which, believe the rest,
The Roses first came red."

and again the poet in another verse gives us this account of the flower's transition:

"'Tis said, as Cupid danced among
The Gods, he down the nectar flung,
Which, on the white Rose being shed,
Made it for ever after red."

—C. H. P.

Where Cowslips Thrive.—Re the parody on page 51, issue January 29, Cowslips *do* grow by river brims. Some of our meadows are full of Cowslips, and I go on spring Sunday afternoons with a happy troop of boys to gather them, and we always find the finest on the very edge of the banks of the New River.—E. A. B.

Iris unguicularis (stylosa).—Re the note on the white form of *Iris stylosa*, issue January 29, page 52, my impression is that there are several white forms of this *Iris*, and that they only differ from one another as seedlings of any species vary slightly among themselves. My own experience has been that seeds of a white form crossed with pollen of a white form breed true to the white colour, as is also the case with the albino forms of *I. tectorum*, *I. sibirica* and *I. orientalis*. Crosses with the purple forms give various pale shades. It is possible, though I have not proved it experimentally, that, if a white flower were pollinated simultaneously on two of its stigmata with pollen of a white and of a purple form, some seeds would give pure white forms and others various shades of purple.—W. R. DYKES, *Charterhouse, Godalming*.

Lachenalias.—Last summer the Rev. Joseph Jacob sent me some of his seedlings, and, with a touch of the humour that frequently adorns

his contributions to THE GARDEN, advised that the bulbs should be potted at the time sportsmen begin to "pot" grouse. The result is a charming display of varieties in the room from which this letter is written. A curious and pleasing feature is the wide variation in both flower and foliage. In the instances before me the colour runs from palest yellow to orange, variously shaded with green and red, and in some cases the flower is tipped with a band of crimson. Sometimes the foliage is dark and sometimes light green. In some instances the flower-stems are sturdy and heavily trussed, while in others the habit is comparatively slender. *Lachenalias* seem quite easy to grow in a cool house, and are certainly invaluable for decorative purposes in the winter. I am surprised that they are not more popular.—CHARLES MARTINEAU.

A Reader's Dry Wall Garden.—The photograph represents a portion of a dry wall; a simple

penetrate the soil, and the bulb is bereft of their support till, some time later, lateral or secondary rootlets are formed. To seemingly strengthen his case Mr. Engleheart cites a seedling *Poeticus* of which he moved the stock when "rooted a full inch long." But inch-long roots would have hardly taken to the soil at all; hence risk in moving and replanting would be reduced to a minimum. Moreover, the case is not analogous to that of bulbs being moved after having made "a considerable quantity of roots" (see page 21, January 8), to which I took exception. Again, *Poeticus* Daffodils differ somewhat from others of the race in their manner of rooting, and Mr. Engleheart will know as well as I that in the older sorts at least the emission of new roots from the bulb is much more continuous than from bulbs belonging to some other sections. His *Poeticus* seedling may have been so endowed, and with only inch-long roots would suffer practically nothing



AUBRIETIA, IBERIS AND FORGET-ME-NOTS IN A DRY WALL.

scheme in blues and white—*Aubrietia* Dr. Mules, *A. græca*, *Iberis* Little Gem and *Forget-me-nots*; an everyday combination, easily grown and yet very effective. For the grouping or the photograph nothing is claimed, but it may serve as a reminder that even in these days of economy simple flowers may be grown and give as much satisfaction as many of the expensive novelties that we long for but cannot have.—A. L. D., *Marple*.

Transplanting Daffodil Bulbs with Roots.—Mr. Engleheart observes on page 51, January 29, in reference to the above, that Mr. Jacob is right and Mr. Jenkins is right "in a way." May I also say that I consider Mr. Engleheart is right—in a way. He says: "The one thing necessary is to keep the roots wet." That certainly is "necessary"; drying would be fatal. But no wetting of the roots or immediate planting will avail anything if, in the process of lifting or replanting, the tips of the roots are broken off. That is my point. Roots so broken cannot further

by the removal, as subsequent experience proved. For experiment and observation I have lifted *Poeticus ornatus* at all seasons of the year, and only rarely found it without new roots just emerging from the bulb. Doubtless it was his appreciation of the well-nigh perpetual rooting of this variety that caused the late Mr. Kendall, in a conversation with me some twenty-five or more years ago, to say, "I consider five minutes out of the soil for *ornatus* four minutes too long," a remark full of point and significance. Mr. Engleheart says Canon Swayne "always divided and moved his clumps in full flower." Well, it did not show great wisdom on the part of the worthy Chancellor. Most people like to enjoy the flowers at that time.—E. H. JENKINS.

FORTHCOMING EVENT.

February 19.—Lancaster Horticultural Society: Lecture on "Carnations."

SHRUBS TO PRUNE NOW.

SUCH a mild winter as that now drawing to a close brings difficulties for the pruner of hardy shrubs. Broadly, he has the choice of two paths: he may either prune earlier than usual, so that the shrubs which are already renewing activities may not waste their energy in making growth which must be cut off; or he may prefer to wait till a later date than usual so as to be as safe as possible from the probable devastations of the hard frosts which pessimists tell us "are bound to come," though when pressed for precedents they are discreetly silent. Experience teaches that in such circumstances the middle course has much to recommend it, and that we may compromise by dealing with the hardier kinds at the customary time and play for safety with those more susceptible to frosts by leaving them unpruned till a little later than usual. Luckily, the latter are mostly of the vigorous habit and nature which does not suffer from the delay.

The general rules to prune those which flower on the coming season's shoots during winter and early spring, and the kinds which flower on growth made last year immediately the flowers fade, is good as a general rule, but of the latter class many may be improved if a certain amount of pruning is done now. Too often flowering shrubs are allowed to degenerate into dense thickets, and there are many overgrown *Diervillas* (*Weigelas*) and *Philadelphuses* which would be more effective during the flowering season if many of the thin, spindly twigs were entirely removed at the present time. But all the Mock Oranges should not be subjected to the same treatment, for the advice is meant more for the erect-growing varieties than such as *Boule d'Argent*, which have graceful, arching shoots, and the charm of these lies in flower mass.

Of the shrubs which have already flowered, the *Laurustinus* is probably the most neglected with regard to pruning. This indispensable winter bloomer may safely be pruned hard, cutting even branches as thick as a man's thumb, for it is almost as amenable to severe pruning as the common Privet, which I have seen cut hard back in the driest of Augusts to quickly become luxuriant again. *Prunus davidiana*, which at the moment of writing is the most fascinating of all hardy flowering shrubs, should be pruned as soon as the last petals have fallen; but, as with all the Almonds and Peaches, the pruning should merely be sufficient to keep them shapely, and hard spurting should never be resorted to. The ever-welcome *Cornelian Cherry* and *Hamamelis japonica* are all the better for a little severity at the hands of the pruner. Often similar treatment is advocated

for the delicious *Chimonanthus fragrans*, but to me it is a barbarous practice. I greatly prefer to keep the principal branches secured to the wall and do no regulation pruning. Then one is able to cut occasional secondary branches, studded with flowers of invaluable fragrance, to place indoors in a jar of water, and in so doing prune all that is necessary.

Except *Rosa*, no genus of flowering shrubs requires more discrimination from the pruner than the delightful *Ceanothuses*. In the various sections of *Clematis* their habit tells the true gardener the time and method of pruning which

But when pruning is needed, it is such as *C. azureus* and *C. americanus* which should be done now. *C. rigidus* and *C. veitchianus* type must be allowed to flower first.

Many shrubby *Spiræas* should be pruned at once. Such strong growers as *S. Aitchisonii*, *S. lindleyana*, *S. Douglasii*, *S. japonica* (often known in gardens as *S. callosa*) and its beautiful varieties are best when pruned hard back to the old wood. The Elders and *Caryopteris Mastacanthus* require similar treatment. *Leycesteria formosa*, the Himalayan Honey-suckle, which is a delightful shrub for planting on top of an old wall, may be cut down to the ground, though in the wild garden less pruning results in more appropriate bushes.

Buddleia variabilis and all its varieties have made precocious growth, but they should be pruned rather severely to induce the formation of vigorous flowering shoots. *B. globosa* requires only sufficient pruning to keep the bushes of good shape or when they have outgrown their position.

Such kinds as the Dogwood and Willows, which are often grown for the beauty of the bark on their young branches, require severe pruning to induce the growing of vigorous branches.

CECIL BARTLETT.



CEANOTHUS AZUREUS. TO OBTAIN MASSES OF BLOOM IT SHOULD BE SLIGHTLY PRUNED NOW.

will be most successful, but not so with *Ceanothuses*. These have to be known individually before they are pruned, though I may "here and now" pass on a rule which I made for myself and which I have found good, which is, "When in real doubt, do nothing," for the sins of omission are surely not so deadly, when applied to shrubs at any rate, as those of commission. In my opinion *Ceanothuses* generally do not call for regular pruning; their floral charm is that of mass—the individual flowers would never compel a backward glance—and this is only obtained from abundance of growth.

than that of the shedding of almost any other forest tree.

But it is to be remembered that gardening is the introduction of plants, for the advantage of their utility or for enjoyment of the gladness of their beauty, into places where they would not otherwise occur, and gardeners have of late years found out that even the dry, hard soil under Beech trees may be made to bring forth abundant flower beauty. How well Crocuses thrive even under Beech trees is shown in our illustration on the next page,

CROCUSES UNDER BEECHES.

THERE is no statement more frequently repeated respecting garden or woodland planting than that nothing will grow under Beech trees. Like many other sweeping assertions that are in the main erroneous, this one has a grain of truth. For if we wander among the chalk hills, where the great wild Beeches—perhaps the very grandest of our forest trees—stretch their great arms wide and high, we find beneath them no forest sward, or Bramble tangle, or brake of other bushy growth; nothing but the carpet of dry rotting leaves, this leafy carpet remaining undecayed for a longer time

NOTES FROM THE RIVIERA.

By EDWARD H. WOODALL.

Prunus Mume ("The Chinese New Year's Shrub") has been only a name to me till now. A double-flowered Apricot, according to the nurseryman's name, *Prunus armeniaca* fl. pl., was offered me last October, and on being assured it was a pretty tree, I rather grudgingly tried a plant and wondered what it would be like. What a wonderful store of treasures is still to

quite near the Almond tree, made a surprising contrast and effect of colour at such a season of the year. By good luck an acquaintance who hails from China came in, and, on seeing this brightly coloured young tree, said at once, "Why, how did you get that? It is 'The Chinese New Year's Shrub' that is generally grown in small pots to flower at the same time as the Good Luck

I am sure a batch of it, well grown and well shown, would command attention and admiration from all who saw it. Certainly it has been greatly admired here, under the ideal conditions of this marvellous season.

Prunus Cerasus serrulata.—There are many varieties of spring-flowering Cherries under this name, some very early flowering and some quite late, that deserve attention. There is one tree now in fullest beauty at the New Year that resembles the single form of Waterer's Cherry; and it is already passing out of flower, while the leaves of last year are still brown or red on the stronger



CROCUSES FLOWERING WITH GREAT FREEDOM UNDER A BEECH TREE.

be found in China! One is so familiar with the highly coloured paintings on fans or on china, which are interspersed with dragons, lovely ladies, or fantastic butterflies, that one looks upon them with a certain reserve as being triumphs of the artist's highly coloured imagination rather than accurate representations of things in Nature. So the beauty of this delightful tree came as a surprise to more than one gardener when it opened its buds the first week of the New Year. This early season the Almond trees were in good bloom on January 1, and this brilliant rose flower, planted by a happy thought

Narcissus. The markets are full of them in China, but I never saw it before in Europe! Its fine bold, semi-double flowers, bright rose when first open, have bright stamens that heighten the effect of the smooth petals in a delightful way, and it is just as bright and dainty as any painting on a fan. I can only suppose that it has at some period been tried in England and found unsatisfactory in the open, because it flowers so early; but in these modern days it would be very easy to grow it in big pots and flower it under glass. It is too good a thing to let slip because it was once thought unsatisfactory for our climate in the open air.

shoots, a very beautiful combination of colour, as all will admit. There is yet another form which, though not yet in flower, is pushing out its bright green foliage and highly coloured flower-buds, which contrast very agreeably with the earlier and stronger-growing form now passing its best. But in this instance the flowers are rose coloured, not pale flesh pink as in Waterer's Cherry. Both are so desirable and so charming that they are worth looking after by those who import such trees. These two were brought from Japan by a friend who had bought a quantity of Japanese Tree Pæonies, and these were thrown in as "gratis"

plants. I am rather of opinion the gift was more valuable than the Pæonies themselves, which are so difficult to keep in health when grafted on the Japanese stock that almost always supersedes the graft! *Prunus miqueliana* must hide its diminished head when compared with these varieties of Cherry. For real brilliance of colour and splendour of individual blossom the palm must be given to the rose-coloured double Apricot, especially when flowering at the New Year. One of the features of this season is the abundance of the lovely Tenerife Broom,

Genista monosperma.—As the bushes have not been severely cropped for their bloom for two winters, the dry and sunny terraces where they are grown are billows of feathery foam, and the air in the morning sunshine is full of its perfume. There must be more of it now on this coast than on its native volcano, I should think, for years ago, when I was there, it was the quantity of the old bushes rather than the abundance of seedlings that I saw. There are two varieties of it, and I greatly prefer the sweet-scented form, which is the earlier of the two and has slightly larger flowers on drooping sprays. The scentless form is preferred by the French for cut flowers, and I am sorry to find it is getting the more common form, as it is stiffer in growth and smaller in the individual flower, though amends is made by the abundance of them. I do not know where this latter form comes from, or if it is merely a variation, as the plant is propagated by seed and not by cuttings; and as it takes several years at least to get to the flowering stage, it seems rather wicked to destroy the young bushes that prove scentless, unless specially grown for house decoration. However, those who love sweet scents should take care to pick out the fragrant form.

BORDER CARNATIONS.

Picotees.—About the end of the sixteenth century a new colour appeared among "Gillo-flowers" in English gardens.

This was an introduction from Poland, and caused considerable interest among English florists, who had never, until then, seen a yellow Carnation.

By the time the oft-quoted "Paradisus" was published in 1629, these yellow Carnations had evidently become popular, for they were largely cultivated, and had by that date already taken on marginal markings of various colours, probably through intercrossing with the white ground Picotees, which date back to an even earlier period.

As can be imagined, the present-day, almost perfect flower, exemplified by, say, Mrs. J. J.

Keen in yellow ground Picotees, and John Smith in white ground, is the result of a long and slow process of evolution from the real *Picotée*, the name given by French growers to their spotted or "freckled" Carnations.

It is a common impression that Picotees are difficult to grow and that they are not hardy plants. To some extent this is true of the white ground section, for their constitution is nothing like so robust as that of the true border Carnation. But I cannot help thinking this is a purely artificial weakness resulting from many generations of culture under glass, not, originally, because they needed this protection, but because their cultivation was largely in the hands of men

themselves to the extent of casting out a beautiful flower coming from a plant of weakly growth. There is a popular yellow ground Picotee, much shown during the last year or two, called Eclipse. This was raised by Mr. Taylor of Cheam, an expert who has given us many first-class Picotees and bizarres and flakes. I draw attention to this one specially because practically every grower would expect to find it in a list of select sorts; but because of its debilitated habit of growth and weak-necked flower-stem I have had to leave it out, nevertheless with regret. It seems such a pity to spoil a useful border plant by sacrificing practically every good feature at the expense of the bloom, so long as perfection of bloom can be attained along with a sound constitution and good habit.

Bearing in mind the high standard of purity in colour by which Picotees are judged, one finds a difficulty in admitting even a dozen into the inner circle of selection of yellow grounds, and not so many as that among the whites.

My twelve yellow grounds would be: Purple edged—Agnes, Her Majesty, Onward and Santa Claus; rose and scarlet edged—Cheam, Exquisite, John Ruskin, Margaret Lennox, Mrs. J. J. Keen and Neil Kenyon; crimson edged—Peter Pan and Togo.

Some handsome Picotees have come from the Midlands of late years, but frequently they have been flawed by a weakness in the ground colour, which does not stand as a clear deep yellow, but fades on the second or third day to cream colour. I am inclined to look for improvement in this respect in two of the latest varieties—Queenie, a light edge, and Professor Burstall, a promising heavy edge which showed up well at Southampton last year as a dressed flower.

The best of the white ground section are: Purple edged—Lavinia, Polly Brazil and President; red edged—John Smith, Mary D. Anstiss, Radiant and Thomas Williams; rose edged—Fair Maiden and Favourite. Perfection, to be sent out from Edenside next autumn,

will be a most valuable addition to this class, and may be styled an improved Mrs. Sharp.

J. L. GIBSON.

A BEAUTIFUL ROW OF SWEET PEAS.

THE illustration on this page depicts a beautiful row of Sweet Peas grown on "Simplicitas" Patent Rot-proofed Cord Netting. The Sweet Peas were grown and photographed by Mr. Ernest Holden, 97, Dukes Brow, Blackburn.



SWEET PEAS IN A READER'S GARDEN AT BLACKBURN.

who delighted to give their charges every care and attention, and the best environment for the production of high-class flowers.

The yellow ground section was, not many years ago, as hardy in every way as any Carnation. I am inclined to think it is so to-day, but so many weakly dispositioned varieties have been named and put on the market that they are bound to give the whole race a bad name. The best Carnation specialists make constitution a *sine qua non* with their productions, but this needs a deal of courage, and many growers cannot brace

THE BEST OF THE NEW SWEET PEAS.

BY THOMAS STEVENSON.

THOUGH for some years past many growers have favoured the sowing of Sweet Peas during the autumn months, yet there are a greater number who still rely on spring-sown plants. This may not in all cases be for preference, but probably because they have not got the necessary convenience for protecting the young plants during the winter months. Though I am a very strong advocate of autumn sowing, I fully recognise the care they require; and as really good flowers may be obtained by sowing during the months of February and March, I venture to give the names and descriptions of some of the newer varieties, in the hope that it may help those who, for various reasons, may not be able to see such varieties and judge for themselves. The popularity of any subject is, to a great extent, dependent on the introduction of new and improved varieties, and we have ample assurance that the Sweet Pea will not fall in popular favour for the lack of enterprising raisers and distributors. Even in such times as we are now passing through, we find they are still persevering; and if new varieties of Sweet Peas are not being sent out in greater numbers, many of them are at least distinct improvements on older kinds and, judging from the trials seen

last season, well ahead in the matter of fixity. This latter good point is a most essential one, as really small growers cannot afford the space to cultivate new varieties if there is not more than a bare chance of their coming true to name and description. It is not to be expected that every season we shall get two such distinct novelties as were Robert Sydenham and Royal Purple in 1915, but there are many that are well worth the attention of enthusiastic grower. Before passing on I would say I did not see

Robert Sydenham so well shown last year as I anticipated, but I feel sure, from the manner it behaved with me in 1914, it will prove an indispensable variety to the exhibitor. It grew very strong and opened a wonderful colour with a little care in shading during the opening of the flowers. On the other hand,

Royal Purple exceeded all expectations, it being a wonderful advance in colour. This is enhanced by strong sunlight and by allowing the blooms to fully develop on the plants. The variety

President (Alex. Dickson and Sons) struck me as being the Sweet Pea of the year, and few who visited Messrs. Dickson's grounds at Mark's Tey last summer would go away without being much impressed by the long rows of dazzling orange scarlet colouring in this variety, which was in no way impaired by strong sunlight.

Edward Cowdy, distributed last year by Mr. Unwin, is another excellent Sweet Pea in this colour, and one or other of these should be grown by everyone.

Fiery Cross, raised by Mr. Malcolm, and being distributed this season by Messrs. Burpee of Philadelphia, is yet another very fine Sweet Pea, it being deep bright cerise in colour, and probably the first in this colour to stand the strong sun well.

Victory (Stevenson, Wimborne) is almost synonymous with the preceding variety; it may have a little more orange in it, but it is hardly discernible. Well worth a trial.

Warrior, another Sweet Pea by the same raiser, marks an improvement in the maroon section. Last season it was with me as

strong a grower as King Manoel, as large in the flower, and quite a rich chocolate maroon.

Tea Rose, raised by Mr. Malcolm, is one of the most delicate coloured varieties I have seen, and may be described as a cream ground with a slight suffusion of rose and buff.

Old Rose, another of Mr. Malcolm's varieties, aptly described by its name both of



SWEET PEA JEAN IRELAND.



SWEET PEA ROYAL PURPLE.

them will be much in demand for decorative schemes. The blooms of both are large and well waved.

Margaret Fife, yet another of Mr. Malcolm's, is a rather distinct blue with large flowers much resembling in shape the two named above.

Jean Ireland (Dobbie) is likely to prove an advance in the picotee-edged varieties. Though not unlike Evelyn Hemus, the ground colour has a little more lemon yellow in it, and the edging of pink or rose is, if anything, rather more defined.

Marvel (Bolton) and **Peace** (Stevenson) are two very much alike, cream-pink varieties; they are both bright, large flowers which are particularly pleasing in the bunch.

Rowena (Bolton), a cream-ground Mrs. Cuthbertson, is large enough and bright enough to satisfy the most exacting grower's requirements, and certainly one of the best of last season's introductions. In

King Mauve (Woodcock) and **Lady Eveline** (Watkins and Simpson) we have two very fine varieties. The latter perhaps is a little brighter and clearer in colour, while both are excellent growers for this colour—bright mauve.

Golden Glory (Stevenson), rather softer in colour than Robert Sydenham, is a good Sweet Pea

which will probably be found useful for cultivation under glass.

Sincerity (Deal) was seen in splendid condition last season, the shape and contour of the bloom being perfect. This, in addition to its bright colour (deep cerise), will make it very popular.

Job Loader (Agate) is a giant crimson, and though I hardly think it as bright as Maud Holmes, its great size will ensure its being grown.

Cissy Wright (Wright) was one of the prettiest Sweet Peas in the trials last season, and though it appeared a little variable in colour (which was a delicate pink), it will, no doubt, find many admirers for decorative purposes.

Henry Ohn (Dobbie) is, I believe, a cream ground, frilled pink. Under glass the flowers of this variety were charming, with plenty of stem; but out of doors I fear there is not vigour enough in the plant for it to be generally appreciated.

WHITE ROSES.

MR. H. E. MOLYNEUX'S interesting little note in THE GARDEN for January 22 on the white Roses has set my memory to work trying to recall the colour pictures of last summer in our Rose garden. But try as I will I can think of nothing whiter than the blooms on a big bush of the rugosa Blanc Double de Coubert, and I notice that Miss Jekyll, a great authority on the colour of flowers, calls it the whitest of all Roses. Many of the so-called white Roses, such as Frau Karl Druschki, are streaked with red on the outer petals of the bud; others, like Mrs. Herbert Stevens, are tinted with fawn in the bud stage, though they become creamy white in the open flowers; while others open

moschata with its hybrids Brunonis, leschenaultiana and beggeriana. A hybrid of the last named crossed with multiflora flowers at intervals all through the summer. Unfortunately, it has a decidedly unpleasant scent. Another species with white flowers is involucrata.

The violet-scented Banksian Rose has little clusters of drooping white blooms which come during the month of May.

Rosa sinica or lœvigata is not hardy, but if given a place against a south wall it will sometimes do well, and the large single white flowers are very beautiful.

The lovely Rosa bracteata, or Macartney Rose as it is often called, which was introduced into England from China by Lord Macartney, also requires a warm wall. We have it growing on the east wall of our conservatory. For two or three years after planting it did not bloom, but the last two years we have had some of its handsome shining white flowers in September and October. Lindley in his Monograph on Roses gives a pretty plate of a white Rose he calls bracteata Lyelli, which Professor Crépín thought to be a hybrid between R. involucrata and moschata.

The white Rose mentioned in "Parkinson" was probably one of the varieties of Rosa alba. These are usually touched with cream or blush, so can hardly come into a list of pure white Roses.

Among garden Roses, the Mosses give at least two that to the best of my recollection are distinctly white. These are the Perpetual White Moss and Blanche Moreau.

Among the white Polyantha Pompons, two of the purest are the tiny and sweet-scented Anna Marie de Montravail and Katherine Zeimet.

The old Hybrid China Mme. Plantier becomes very white when fully expanded, and the Hybrid Noisette Boule de Neige might certainly put in a claim to be considered a white Rose.

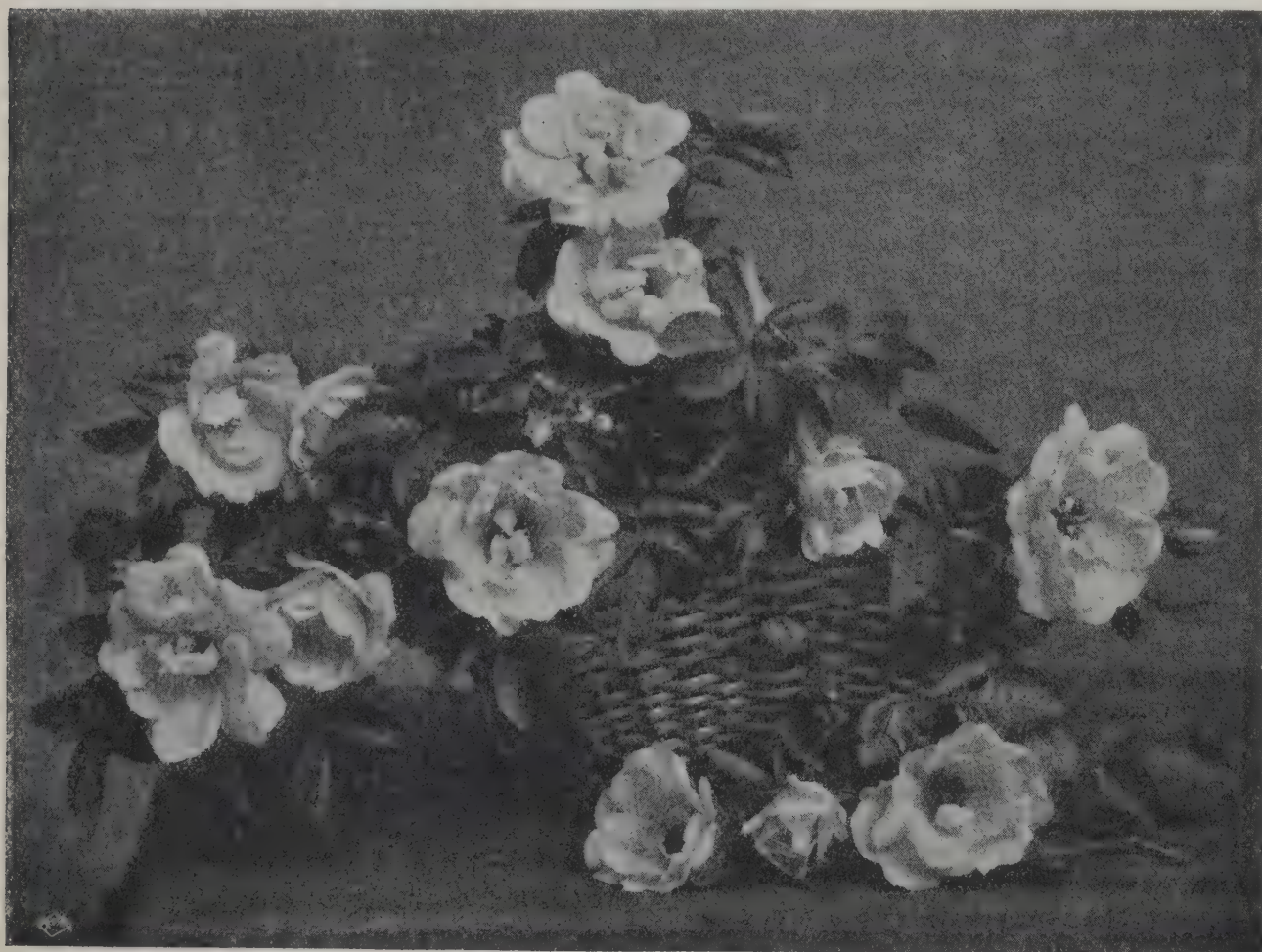
Mr. Molyneux is right in objecting to the deep ivory or lemon-coloured Tea Rose White Maman Cochet being so called. Far whiter than this are the old Tea Roses Niphetos and Souvenir de S. A. Prince, but neither is quite pure white.

I have never seen the Rev. J. H. Pemberton's White Rambler growing in the garden, but as he has shown it at Bath and in London it struck me as being a singularly white Rose, and it so, it will be very useful, for White Dorothy has proved a fraud, and often comes streaked and veined with pink.

There are many pretty legends told of the white Rose. Some, as Mr. Molyneux reminds us, would suggest that the first Rose was a white one. Spenser alludes to this in his "Daphnida," where he writes:

"White as the native Rose before the change
Which Venus' blood did on her leaves impress."

Thomas Miller, in the "Poetical Language of Flowers," tells that "The white Rose has long been considered as sacred to silence; over whatever company it was suspended, no secrets were ever revealed, for it hung only above the festal board of sworn friendship"; and in a political poem of the fifteenth century we may read of "the white Rose of England that is frische and wol not fade. Both the rote and the stalke that is of great honoure." Next summer I shall look with greater interest on the various shades of white among our Roses, but I do not expect to find among them anything to beat the trio of rugosas, Blanc Double de Coubert, rugosa alba and Schneezweg, either for the purity of their whiteness or, as regards the first two named, the sweetness of their scent. **WHITE LADY.**



ROSA ALBA, PROBABLY THE WHITE ROSE OF PARKINSON.

Mrs. Burnie (Dobbie) is a giant white with a flush of pink in the standard. A great grower and very free bloomer.

Constance Acomb (Holmes) is unique in colouring, being a creamy white ground with mauve markings, in the way of Phenomenal.

Mrs. Arthur Stevenson (Unwin) is a well waved and large variety; the colour being lilac or pale mauve on a white ground; very pleasing.

Lord Fisher (Holmes) is a good, free growing, chocolate maroon variety which gives plenty of four-flowered sprays, and I should say the best in its class. Distinct from Warrior and King Manoel.

Mrs. E. Wright (Bolton) is an extremely pretty variety in the way of Lottie Eckford, the colour being white, slightly flushed mauve, with distinct blue edge to standard and wings.

There are others, but the foregoing are certainly the best that I have noted and in many instances grown during 1915, and these, without the addition of older varieties, would make quite a good and representative collection.

white and are tinted pink by the sun's rays. But Blanc Double de Coubert is pure white in all stages—bud, open flower and fading bloom. Therefore, with only my memory to rely on, I cannot dispute Mr. Molyneux's contention that Blanc Double de Coubert is the whitest of Roses, though I can think of many Roses that may fairly claim to be called white.

The first two that occur to me are also rugosas. Rosa rugosa alba has large single white flowers, and the pretty little Schneezweg, said to be a cross between rugosa and bracteata, has wonderfully pure white, semi-double flowers. They always remind me of white Poppies. This makes a delightful dwarf bush for the rock garden.

The beautiful Rosa sericea, the "Silky Rose" from the Himalayas, has four white petals, and when the bush with its Fern-like foliage is covered with bloom in early May, it has quite a snowy effect.

Rosa sempervirens and its African hybrid abyssinica are white Roses. So, too, are Rosa

ROSE FORTUNE'S YELLOW

THE following note on Rose Fortune's Yellow may not be amiss, as I saw in a recent number of THE GARDEN an account of it growing under glass at Warley. I think if the culture of

it were more generally understood, no difficulty would be experienced in growing this lovely Rose, far and away the loveliest when seen in a mass with its petals of gold and rose, vermillion and cream.

My first experience of it was some seventeen years ago, when I had a house on top of a hill in Berkshire with a stiff clay soil. Here I planted my Rose in the gravel of a stable yard on a south wall. This was either pure ignorance or carelessness on my part, as I had merely seen it growing in Italy and knew nothing of its requirements. However, it flourished and grew rampantly and "above itself," as is its wont, with bare stems below and a wealth of flower above. A few years later I moved to a garden six miles away, lying low, with gravel soil.

Profiting by my experience, I planted my Rose again without manure, and merely rammed into the gravel. This time it is on a wall where, though facing south, it gets but little sun, owing to high trees facing. It is often very damp in that corner, and we have known 14° of frost. Still it is undefeated, and flowers most beautifully. Last year it fell off the wall in a gale, and, being early spring, we just propped the mass up with stout Oak supports, and it was a glorious sight the first week in June. Occasionally it is cut back immediately after flowering.

This Rose is also to be seen in great beauty at Riverhill in Kent. The original plant sent home by Mr. Fortune, or one of them, was sent to Riverhill, and lived until quite recently, when it was succeeded by one of its off-spring. I have never seen it anywhere else but in warmer places. Riverhill is singularly favoured as to situation, and cannot be cited; but Berkshire is not a particularly warm county, and yet in two such different gardens as my stiff clay hill and my low gravel level I have proved it as easy to grow as a Briar. My present plant has been here fourteen years.

ALICE MARTINEAU.

Hurst Court, Twyford, Berks.

P.S.—I wonder if anyone can tell me the name of a Rose much grown at Cadenabbia

and locally called Fortune's Yellow. It had a very fluffy, pinky yellow flower, and the leaves were curiously stiff and grey, hardly to be described as glaucous, but quite different to Fortune's Yellow. Moreover, it flowered all the summer, apparently. I saw it in great beauty in September growing in masses on a villa near the English Church. Its owner insisted that it was Fortune's Yellow, but it was far more double and a different colour and leaf.—A. M.

ROSE GARDENS IN LONDON

At length we are to have municipal Rose gardens in and around London. The want of such added beauty in the numerous parks and open spaces

of the suburbs, many of which lend themselves especially to attractions of this nature, has long been felt by the many and urged by the few.

The City of London Rose Society has taken the lead in convincing London municipal bodies of the real benefit, the lasting beauty and the elevating influence which Rose gardens could confer upon the citizens. The scheme is in excellent and energetic hands, and seems likely to make much headway. A start has been made in the London County Council gardens at Forest Hill and Eltham, and in open spaces at Wimbledon and Carshalton, all of which are being laid out

under the supervision of a committee of the City of London Rose Society.

We understand that this society is planning a new departure this year by opening its membership to all amateur Rose-growers, while reserving sections for its City members as heretofore. This step seems likely to widen the scope and influence of the society very considerably, and evidently energy and enterprise are not wanting among those who are guiding its destinies.

Last year's exhibition, held at the Cannon Street Hotel, was the means of adding £65 to the funds of the Red Cross Society, and we understand that this year's activities are to be devoted to the same worthy object. The Lord Mayor (Sir Charles Wakefield) has presented a new City of London Challenge Cup; and three special Red Cross Cups, to be won outright, have been added to the prize list by the generosity of Mr. and Mrs. Malcolm Anderson.



ROSA SINICA OR
LÆVIGATA, WITH
BEAUTIFUL SINGLE
WHITE FLOWERS.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Cucumbers.—Plants raised early in the year may be transferred to beds as advised last week for Melons, and a few more seeds can be sown. Cucumbers thrive in a light, rich soil, with frequent top-dressings as the roots reach the surface. Give a little ventilation when the elements are favourable, but all the ventilators must be closed an hour or two before the sun ceases to shine on the glass.

The Kitchen Garden.

Rhubarb.—Roots may be lifted and placed in gentle heat, such as an old Mushroom-house or under a stage where a temperature of 50° can be maintained. Ground may be prepared for new plantations of Rhubarb, also for Asparagus, Seakale and Jerusalem Artichokes. Trench the soil and give a good dressing of rotted farmyard manure.

Broad Beans.—If the soil is in a suitable condition, the main crop of Broad Beans may be sown, choosing such varieties as Improved Longpod, Green Windsor and Giant Windsor.

Leeks.—The main sowing can be made outside, and if the seed is sown thinly, it will produce sturdy plants for the general crop.

Brussels Sprouts should be sown in a box or cold frame from which frost is excluded, and if grown cool, a few strong plants will be useful for an early supply.

Plants Under Glass.

Achimenes.—It is now time to start a batch of these, but the bulk should wait until the middle of March. Shake the tubers out of the old soil and repot in the usual compost. Until growth is well away they should remain in the warm house, when they may be transferred to a cooler structure. Keep near the roof glass, and use the syringe freely between the pots and overhead. When well established, copious supplies of water may be afforded.

Tuberose, after removing all side growths or small tubers, should be potted in light, sandy loam. Plunge the pots in bottom-heat and do not give much water. Pot on as required, and grow them in a warm house.

Luculia gratissima.—As this desirable winter-flowering shrub passes out of bloom, it may be pruned. If the plants are large enough, fairly hard pruning can be indulged in; otherwise the growths may be allowed to extend. Repot if necessary in a mixture of loam, leaf-mould and sand. Propagation is effected by cuttings of the young shoots taken in March or April.

The Hardy Fruit Garden.

Strawberries.—To secure the best results, a new bed should be made each year and a few lines of the old stock discarded annually. If this work is unavoidably held over from the autumn, it should be proceeded with directly the soil is suitable. Both heavy and light soils will be improved by the addition of Wakeley's Hop Manure, while heavy soils should receive a dressing of grit. Plant in lines 2½ feet apart and 18 inches from plant to plant. Seeds of alpine Strawberries may now be sown.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Globe Artichokes.—These may be increased at this time. A portion should be planted annually, as the old roots soon deteriorate. Suckers should be removed with a portion of roots attached and planted in a well-prepared piece of ground, allowing a space of about 5 feet between the lines. Remove the winter protection from the established stools and dig in some well-decayed manure,

using a fork instead of a spade to avoid damaging the roots.

Chives.—Divide old clumps of Chives and give them a fresh situation with liberal manuring.

The Hardy Fruit Garden.

Apricots, Peaches and Plums on walls will soon be coming into flower, and some means of protection should be provided for them against frost. An arrangement for screens of tiffany to be lowered at night and removed during the day is perhaps the most efficient. Two or three thicknesses of old herring-net serve the purpose very well if the frost is not too severe, and they can be left on by day as well. We have also used light-weight Spruce branches fastened to the walls, with good results.

Pruning and Nailing.—This should be pushed on towards completion with as little delay as possible, although with the continued scarcity of assistance it will be difficult in many cases to keep up with the usual time-table. Planting of all fruit trees and bushes may still be carried out when the soil is workable.

Fruit Under Glass.

Vines.—Vines that were started early will now require attention in the way of pinching and tying. The shoots should be stopped at the second or third joint beyond the bunch. Later, allow the growths to extend far enough to well cover the roof with foliage. The shoots must be brought gradually down to their positions on the wires. Undue pressure will cause them to snap, as the young shoots are very brittle at this stage. Gradually raise the temperature as the days lengthen, and when the bunches are showing flower keep the atmosphere somewhat drier. Assist pollination by tapping the rods daily, or touch the bunches ever so lightly with a fine feather brush. Shy-setting sorts are benefited if pollen from a prolific variety is shaken over them. Attend well to watering, remembering that established Vines in well-drained borders will stand an almost unlimited supply of water. If spring water is used, it should be heated, not used direct from the pipes. Feeding should be carried out systematically until the Grapes are colouring.

Peaches.—Earliest crops that are swelling their fruits may receive another thinning, also a few more shoots should be removed. Where the trees are trained to espaliers, the young growths will require tying into position, for if left too long they soon get out of management. Avoid retaining too many young shoots, as overcrowding only weakens the whole and causes disappointment in the future. Trees that are showing flower should be brushed daily to distribute the pollen, and the trees given a light syringing, applied with considerable force. The brushing may, however, be dispensed with if the days are bright. If bees are flying and can obtain access to the trees in sufficient numbers, the above aids to setting the fruit may be discontinued. If the trees are thickly studded with fruit-buds, these may be thinned to a certain extent before they develop.

Plants Under Glass.

Gloxinias, Achimenes and Caladiums may now be started in heat, shaking them clear of the old soil and starting them in boxes in some loose, light soil. Be sparing with moisture until they have made some roots and growth, when they may be potted up.

Calceolarias.—These will now be ready for their final shift into their flowering pots. A light, rich compost just moderately firm suits them best, and when the pots are well filled with roots liberal supplies of liquid manure can be given. The plants should be grown quite cool, on ashes if possible, and kept near the glass. Fumigate occasionally to ward off green fly, which attacks them readily.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

POTTING AND STOPPING CHRYSANTHEMUMS.

AMATEUR cultivators will be busy now making preparations for the repotting of the young plants and stopping them. The work of potting and stopping must not be done at the same time. The points of the plants should be pinched off about ten days before, or ten days after, the plants have been repotted. When stopped before the potting is done, the young shoots grow nearly half an inch long, and so no serious check to the growth of the plant occurs.

Plants now in small 60's should be shifted to 5-inch pots; those now in large 60's to 6-inch pots. The compost should be of the very best quality, that which will induce new roots to enter it freely. The loam should be full of fibre, and



THE FIRST POTTING AND THE STOPPING OF THE YOUNG CHRYSANTHEMUM.

have been cut and stacked early last autumn. Fancy mixtures are a mistake. Good loam should form the bulk of the compost. Add to it a small quantity of sweet leaf-soil, and to each bushel of the above combined parts a 6-inch potful of wood-ashes, a 3-inch potful of bone-meal, and sufficient sand to make all porous. Use the compost while it is in a medium state of moisture and press it down firmly. If the roots and old soil are moist when potted, water will not be needed for two or three days. Positions in pits or frames will be suitable for the plants. No. 1 shows the rougher part of the compost; No. 2, the finer part. It will be advisable to stop plants intended to bear second crown buds first; then those late varieties for first crowns. The point No. 3 should be neatly removed, then side shoots will grow as shown at Nos. 4, 4, 4. Plants to form bushes should be cut off a few joints lower down.

AVON.

THE 1915 "DAFFODIL YEAR BOOK."

THE truly remarkable effusion with which the Rev. G. H. Engleheart treats the readers of THE GARDEN of January 29 leaves one in wonder whether to admire the more the hardihood of his assertions, or the refinement of tone which characterises his communication.

He tells us that the penultimate paragraph of my last letter misrepresents his arguments, and is opposed to one of his "main contentions." So far from this being the case, the paragraph in question was, and is, an accurate summing up of the position which Mr. Engleheart had taken up—to be abandoned, now, under "stress of circumstances." It is surprising with what success Mr. Engleheart, up to now, has succeeded in concealing, so effectually, his real views upon the subject, for if a man has definite "contentions," it is reasonable to expect that he will hasten to openly state them. Yet in nothing that Mr. Engleheart has written is there any statement that, to use his own words, "almost every garden is peculiar in its conditions," or "that it is fruitless to argue from one to the other, or from any one to all." These have been exactly *my* "contentions," clearly stated from the first, and supported by elaborate argument; and now Mr. Engleheart, having apparently been converted, would seek to appropriate them, label them as his own, and then has the hardihood to turn round and suggest misrepresentation of his views.

Where has he ever "argued" or openly "contended" for anything of the sort? On the contrary, the whole trend of his letters has been, in substance and effect, to insist on the acceptance of the results at Dinton, under the conditions at that place, as forming the only standard upon which argument could be based, or from which correct conclusions drawn. The experiences of others, working on a smaller scale, have been met by a vigorous waving of the flag of "immensely greater experience"; and smaller statistics, and conclusions, uncontrovertible, but unwelcome to him, have been sought to be overwhelmed by the "big battalions" of opposing statistics alleged to prove different results in his "immense areas" at Dinton. Were it not so, all that he wrote about the behaviour of *Narcissus* Mme. de Graaff at Dinton would have been meaningless.

And, in his latest dealing with the Rev. Joseph Jacob, Mr. Engleheart still subordinates or obscures the true issue—if, indeed, he has not already forgotten what that issue is—for in his "£ s. d." paragraph we find him actually treating the question as if the issue were the production of new varieties having a commercial value; whereas the sole point anent the word "successful" has been the realisation of an intended cross, altogether irrespective of the market value of the result. And Mr. Engleheart calls this "commercial" test the "matter" about which we have all been contending!

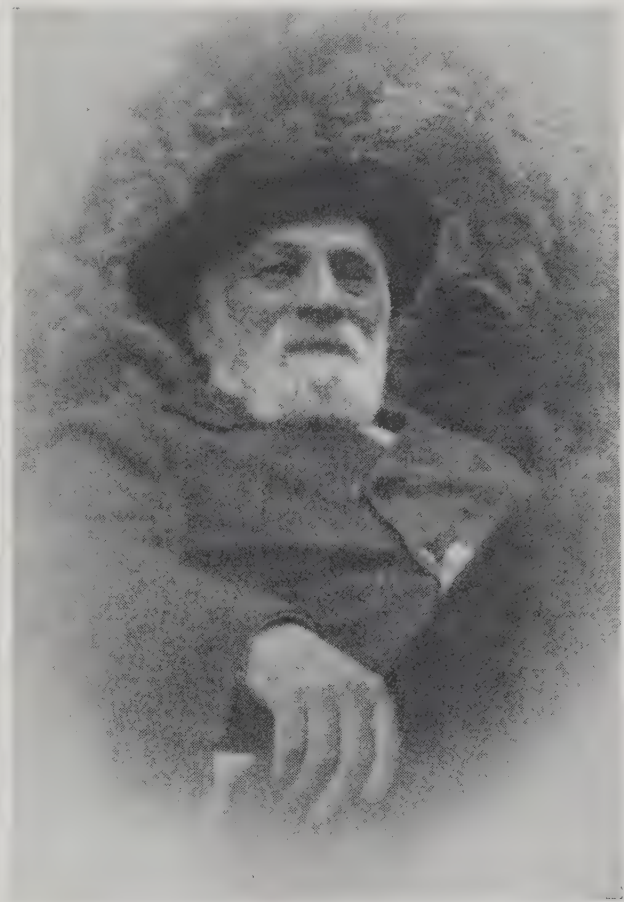
But why, even in this erroneous view of it, must poor "Messrs. Jacob and Co." have worked only on such poor stuff as to render their results so valueless? Dr. Lower's "stud" did not seem to suggest that conclusion. But, unfortunately for us potential purchasers of new varieties and seed, we are not told where to go for that exceptional seed, "guaranteed," notwithstanding the

dangers of self, or insect, pollination, and "reversion," to have a backing of unimpeachable and infallible pedigree stock. I fear that I have made it sound rather like a cattle-breeder's advertisement.

Few other points in Mr. Engleheart's letter call for separate notice, but he cannot be allowed to shift the question of self fertilisation and its probability from the Trumpet section to that of the Poeticus—although it does help him to drag in Müller's name—for everybody knows that the structural features of the Poeticus afford infinitely greater facilities for self fertilisation than do the Trumpets, with which alone we have been dealing (*i.e.*, Mme. de Graaff).

I would venture to suggest that greater attention to structural botany and its teachings might lead to an appreciation of the importance of the essential differences between the two sections named—differences to which, for some reason, Mr. Engleheart has not remembered to direct attention.

As to Daffodils being seldom "wind pollinated," the agency of the wind in dispersing pollen in a



THE LATE CANON ELLACOMBE, V.M.H.

wide range of plants is so well known that comment on Mr. Engleheart's statement of opinion is unnecessary; and, besides, the *negative* conclusion stated cannot, *ex necessitate rei*, be susceptible of *affirmative* proof.

This leads us directly to a by-product, if I may so call it, of the present correspondence, and a very important one. I will crystallise the point by a specific example. On page 38 of the 1913 "Daffodil Year Book" occurs the following:

"WHITE EMPEROR.—By measurement this is a Giant Leedsii, but by appearance it is a Trumpet. The Rev. G. H. Engleheart, the raiser, states that White Emperor is of pure Ajax descent, and so the classification of the variety gave fanciers a fine opportunity for a lengthy discussion."

And no wonder, for here we have the issue clearly raised—which is to prevail; whether the statements as to parentage, with all the possi-

bilities of miscarriage enumerated by Mr. Engleheart, made by the raiser, or the clearly formulated requirements as to "measurements" set out in the Royal Horticultural Society's Regulations?

For the rest, Mr. Engleheart's letter may well be left to the destructive effect of its own inherent weakness.

A NOVICE.

OBITUARY.

CANON ELLACOMBE, V.M.H.

WITH deep regret we learn, just as our pages are closing for press, of the death of Canon Ellacombe, a grand old gardener, who passed away on the 7th inst. at the advanced age of ninety-four. For sixty-five years he was Vicar of Bitton, Gloucestershire, and the garden there is known wherever horticulture is practised or botany is studied. It was, and is, a garden of rare and very exceptional interest. Notes and articles on the famous Bitton Garden and the plants growing there have appeared in the pages of THE GARDEN from its earliest issues. The aged Canon's father was the possessor of this famous garden before him, and a catalogue of the hardy plants and trees of Bitton appeared in THE GARDEN as far back as December 24, 1881. It is interesting to note that the Rev. H. T. Ellacombe, father of the deceased, published large books after he was ninety. The old garden at Bitton is more richly stocked with hardy plants than most of the largest botanic gardens, while it has been the refuge, as it were, of many a fine plant that would have vanished altogether from cultivation. Under the fostering care of Canon Ellacombe it was one of the most interesting gardens in the country, and one in which hardy plants, shrubs and trees found a congenial home. Canon Ellacombe was one of a distinguished family directly descended from Sir Hugh Myddelton.

ANSWERS TO CORRESPONDENTS.

FLOWER GARDEN.

INJURY TO VIOLETS IN FRAMES (*A. S.*).—It is impossible to say with absolute certainty what it is eating the ends of the buds of your Violets. Only investigation on the spot can make certain. We suggest that the frames in which the plants are should be visited after dark with a powerful light, and slugs and caterpillars searched for. There may well be such hiding beneath the soil surface during the day. If they are found, they may be destroyed, and the plants sprayed with lead arsenate, which is poisonous to such pests. A break-back mouse-trap baited with cheese or bacon rind, or a little bit of tallow or butter, will soon catch mice if they are the marauders.

MISCELLANEOUS.

NAME OF A MINT (*Melon*).—To name plants which are not before us is by no means satisfactory, though from your description the kind to which you refer is *Mentha rotundifolia*, probably. Your safest way, however, will be to send a specimen in July or thereabouts.

QUEEN WASPS (*Miss I. H.*).—All wasps found at this season of the year are queens, and queens always hibernate in such places as those you mention. It is by means of hibernating queens that new nests are started each year, and every queen killed now means hundreds of wasps fewer next year.

PEAT MOSS LITTER (*Lieutenant-Colonel E. W. R.*).—Peat moss litter such as is used, for bedding for horses is not a very satisfactory substitute for ordinary peat for placing about the roots of peat-loving shrubs. It can, however, be used, when well rotted and perfectly sweetened, for top-dressing the ground about Rhododendrons, &c., and can be used for digging into heavy ground. For ordinary planting, however, it is advisable to procure good peat.

CELERIAC (Mrs. H. W.).—We do not think the cause of the poor growth of the Celeriac roots submitted is an attack of wireworm, but is more likely the result of bad culture, as we fail to detect sufficient wireworm attacks on the roots. This vegetable should have more prominence given it than it at present receives, and we hope shortly to publish an article on its culture and method of cooking the roots, by Mr. E. Molyneux, with a view to affording more encouragement to the growth of this vegetable.

DEEP-ROOTED WEEDS (Miss A. C.).—It is not possible to clean ground properly of deep-rooted weeds without digging the weeds out. As you desire to plant the area with shrubs, it would be advisable and almost necessary to trench it before planting, therefore the weeds could be dug out at the same time. In the event of the necessary labour for spade work not being available, it might be possible to work the ground with horse labour, employing a cultivator or plough and picking the coarse weeds out. If the land has been covered with weeds for a long period, it would be a good plan to work it now, and plant it with Potatoes or Corn for the summer, then plant the shrubs in autumn. This would greatly assist in cleaning the ground.

TREATMENT OF A SLOPE (A New Reader).—It is somewhat difficult to advise without seeing the place, and you do not even give the extent of the slope or the conditions likely to prevail at the bottom. These particulars would have been most helpful. If the slope is a very sharp one, not many things would do in the light and shallow soil referred to; but if of a gentle nature or capable of conforming thereto, it might, if its extent permits, be twice or thrice divided and planted with Wichuraiana Roses to trail down. To do this the planting station in each section would need trenching and levelling up in order that the roots of the plants would receive the rainfall. Good plants would trail 10 feet or more if well planted, and nothing would cover more quickly or be more generally presentable. The plants may be put in 3 feet apart. Annuals could also be introduced for the first year. If this reply does not meet the case, please write again giving fuller particulars.

NAMES OF FRUIT.—H. Y. B.—Pear Vicar of Winkfield, or Bon Curé, useful for dessert and stewing.—D. A., *Midlothian*.—1, Lamb Abbey Pearmain; 2, Five Crown Pippin.

NAMES OF PLANTS.—N. N.—*Garrya elliptica* (male catkins). It was figured in THE GARDEN, January 1.—Mrs. H. P. E.—1, *Discaria serratifolia*; 2, *Azara Brownia*; 3, *Laurus nobilis* var. *angustifolia* (Sweet Bay); 4, *Correa speciosa magnifica*; 5, *Euonymus grandiflorus*; 6, *Garrya macrophylla*; 7, *Arbutus Unedo* (Strawberry Tree); 8, *Umbellularia californica*; 9, *Osmanthus Aquilium* var. *ilicifolium*; 10, *Phillyrea angustifolia*.—Mrs. M. E. W.—*Quercus Ilex* (Holm or Evergreen Oak).—J. B.—1, *Saxifraga ligulata* var. *speciosa*; 2, *Daphne Mezereum* (Mezereon).

SOCIETIES.

ROYAL GARDENERS' ORPHAN FUND.

In spite of many difficulties, this admirable Fund continues its work of granting aid to the maintenance of fatherless children. Over £1,805 has been granted in allowances to orphans during the past year, and sixteen candidates were placed upon the Fund at the annual general meeting held on the 4th inst. There are many ways in which a helping hand may be extended to this worthy Fund, and it is specially brought to the notice of horticultural societies and gardeners' improvement



"BILLY WHO BEGS FOR THE BAIRNS."

associations. The secretary's Yorkshire terrier puppy has worked hard for the good of the cause, with very gratifying results. The Royal Gardeners' Orphan Fund is doing a real good work, and in these strenuous times we must see that this Fund is not overlooked. All of the officers have been re-elected, and Mr. C. R. King (Richmond) has been elected on the committee to fill the vacancy of the late Mr. John Lyne. Subscriptions should be sent to Mr. Brian Wynne, the worthy secretary, 19, Bedford Chambers, Covent Garden, London, W.C., who would be only too pleased to supply any information regarding the Fund.

SOUTHAMPTON ROYAL HORTICULTURAL SOCIETY.

The annual meeting of this society was held in the Municipal Offices recently. The Mayor (Alderman

W. J. Dacombe) presided, and there were present Lord Swaythling (president), Messrs. H. E. Molyneux (chairman of Council), N. D. Desborough (vice-chairman) and C. S. Fuidge (secretary). The fifty-third annual report of the society stated that cheques for five guineas each were forwarded to the Royal Gardeners' Orphan Fund and the Gardeners' Royal Benevolent Institution. Owing to the loss of income from subscriptions and otherwise, it was considered advisable to arrange for only two shows for 1916. Ellen Lady Swaythling having again very generously placed her grounds at the disposal of the Council, arrangements were being made to hold a grand summer exhibition (combining both Roses and Carnations) at South Stoneham House Grounds on July 12.

The statement of accounts indicated that there was a deficit on the year's working of £6 11s. Mr. H. E. Molyneux proposed the adoption of the report, and supported the welcome accorded Lord Swaythling. He desired to tender very sincere thanks to his lordship, Lady Swaythling and Ellen Lady Swaythling for their very great services to the society. He was sure they would all wish to heartily congratulate Lord Swaythling on the great honour recently conferred upon the Hon. E. S. Montagu. Speaking directly of the report, he said that it was one of which the Council had every reason to be very proud. The number of subscribers had decreased, and it was hoped that the old members who were still resident in the neighbourhood would see their way clear to again join the society. The society had lost no fewer than four of its cups, but three had been replaced. The Rev. Alan Gunn had renewed his trophy; the Munn Plate had been replaced by a member of the society; and the society, it was thought, would be able to provide the other.

The Mayor proposed the re-election of Lord Swaythling to the presidency. Mr. Toogood seconded, and it was carried with acclamation. The vice-presidents were re-elected, and Messrs. Green, Moberly and Green were reappointed hon. solicitors. Mr. Molyneux was re-elected chairman of the Council, a position in which he has served for three years, and Mr. N. D. Desborough (vice-chairman) and the treasurer were also re-elected. Mr. Molyneux proposed with pleasure the re-election of Mr. Fuidge as hon. secretary. The society, he said, stood in a unique position with regard to Mr. Fuidge. There was no other society in the kingdom which had a secretary who had served them so long, well and faithfully as their secretary had served them.

The War Office notifies that from now onward all papers posted to any neutral European country will be stopped, except those sent by publishers and newsagents who have obtained special permission from the War Office. Such permission has been granted to THE GARDEN, and subscribers who send to friends in Denmark, Holland, Norway, Sweden, Switzerland, Spain, Portugal, Greece, and Roumania should order copies to be despatched by the Publisher from 20, Tavistock Street, Covent Garden, W.C.

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THE GARDEN.

No. 2309.—Vol. LXXX.

FEBRUARY 19, 1916.

NOTES OF THE WEEK.

Drug Growing.—There is an attempt being made to revive the growing of drugs in Britain and Ireland in order to meet the shortage which is being caused by the war. We are glad to see a timely warning about the pitfalls that await the grower who rushes blindly into the business, from Sir Frederick Moore in the *Irish Times*. To command success, it is a case of look before you leap. Yet, until not a very great while ago, drugs were grown or collected in considerable quantities in the British Isles, and were a very important harvest. It is said that our often-used expression "cut and dried" is a relic of that period, and that the word drug itself comes from the Dutch

member asked if the lunch would be "dry," and another presumed it would be vegetarian; but Mr. Jacob had scored his point, for those who had not heard of the show made eager enquiries concerning it.

Hospital Gardens in France and Flanders.—Field-Marshal Lord Grenfell, in the course of his presidential address to the members of the Royal Horticultural Society, referred to the admirable work that the society is doing in sending seeds and plants to hospital camps in France. Over one ton of bulbs were sent out in the autumn, which were planted in the camps at Etaples and

Germination of *Vallota purpurea*.—At a recent meeting of the scientific committee of the Royal Horticultural Society, Mr. H. J. Elwes drew attention to the curious germination of the seeds of *Vallota purpurea*. The seeds, which were sown on the surface and fully exposed to the light, sent out the usual germination process, from the apex of which roots were developed. All the reserve food passed from the seed to the apex of the process, which became green and swelled before any leaves were developed. In all probability food was made during this stage of germination. In several cases in allied plants the formation of chlorophyll is normal in seeds.

***Iris reticulata histrioides*.**—The broad fall petals of this charming *Iris* are delicately marked, narrow bands of white indent the blue ground, while a narrow line of gold forms a central ridge and is carried well into the throat of the flower, much in the way of a crest. It is a pretty harbinger to enjoy on the rock garden, planted in a sunny, sheltered nook in well-drained, gritty soil. *Iris reticulata histrioides*, being so precocious can be readily enjoyed in the alpine house.

Rose Growing in Holland. Holland is so intimately and, with many, so exclusively connected with the growing of bulbs, more particularly of those of Hyacinths and Tulips, that it will be news to some to learn that at the beginning of the last century the village of Noordwijk was famous for its Roses.

As in Bulgaria at the present time, they were grown for perfumery and medicinal purposes. The petals were collected, dried, and then sent to Amsterdam, whence in due course they were exported and sent to, among other places, Constantinople! One would have thought it would have been a case of "sending coals to Newcastle," did not the extent of the trade forbid the insinuation. It is quite within the bounds of possibility that where the writer saw the most glorious field of Sir Watkin Daffodils that anyone could wish to feast upon, eighty years before the same ground might have been one huge bed of the Hundred-leaved Rose.

Missing No 2310



A HARBINGER OF SPRING: *IRIS RETICULATA HISTRIOIDES*.

issue of licences for the export of sulphate of ammonia was based on the assumption that the home demand for this fertiliser would be substantially increased. Unless the demand is at once increased, the stocks will accumulate and the output will be curtailed. In view of the importance of using every effort to stimulate the production of maximum crops during the war, Lord Selborne appeals to growers to avail themselves without delay of the present opportunity to procure supplies of sulphate of ammonia for spring use.

A Plea for Home-Grown Bulbs.

At the recent annual general meeting of the Royal Horticultural Society, the Rev. Joseph Jacob referred in appreciative terms to the action of the Council in arranging a show of dry home-grown bulbs to take place in August next, the object of the show being to popularise and encourage the bulb-growing industry of this country. He suggested that the show be made the occasion for a lunch to the exhibitors, judges, and members of the Press. The suggestion of a lunch at a dry bulb show drew friendly and amusing criticism. One

elsewhere. By this means the otherwise depressing and muddy surroundings of many hospitals are being converted into delightful gardens, while garden work affords health-giving recreation for convalescent soldiers. We also express our appreciation of a scheme put forward by Mr. H. J. Elwes that the Council should arrange for sales of particularly interesting or valuable plants contributed by Fellows of the Royal Horticultural Society for the benefit of the Red Cross Society. The suggestion was well received, and we hope to hear that the Council can see its way clear to adopt the same.

present time, they were grown for perfumery and medicinal purposes. The petals were collected, dried, and then sent to Amsterdam, whence in due course they were exported and sent to, among other places, Constantinople! One would have thought it would have been a case of "sending coals to Newcastle," did not the extent of the trade forbid the insinuation. It is quite within the bounds of possibility that where the writer saw the most glorious field of Sir Watkin Daffodils that anyone could wish to feast upon, eighty years before the same ground might have been one huge bed of the Hundred-leaved Rose.

CORRESPONDENCE.

(The Editor is not responsible for the opinions expressed by correspondents.)

Lowther Castle.—I have read with much interest the supplementary description of Lowther Castle and its grand environment of woodlands and gardens which appeared on page 63, February 5, of THE GARDEN. I think, however, that the quotation from Mrs. Hemans, as applied to Lowther, is quite appropriate. So also is the characterisation of the immortal Wordsworth, which is stately and expressive. Wordsworth was likely to know Lowther Castle and its inspiring surroundings very intimately, as his father was law agent to the Earl of Lonsdale. I may add that I did not intend my description of Lowther Castle Gardens to be in any degree exhaustive of such a comprehensive subject; nevertheless, I have the satisfaction of knowing that it was read with appreciation by Lord Lonsdale before it appeared in THE GARDEN.—DAVID R. WILLIAMSON.

Garrya Thureti.—Though this shrub differs from the better-known *Garrya elliptica*, it nevertheless possesses a striking resemblance to it, especially in the catkins. While not such a showy evergreen as *Garrya elliptica*, it is one that should certainly be included in all collections of shrubs, as the variety among flowering shrubs and others of interest during the month of January is none too great. The specimen here at Fota, the residence of Lord and Lady Barrymore, from which the spray illustrated was taken, is a bush 10 feet to 12 feet high, and bore a greater profusion of catkins than did a bush of the male form of *G. elliptica* near by, though not so large or long. Still, many of them measured 6 inches in length, and, suspended from the lighter leaves and less sturdy general habit of the bush, were just as pleasing and effective as *G. elliptica*. *G. Thureti* is quite different from *G. elliptica* in the shape of the leaf, and while the leaves of the latter are covered on the under side with tomentose hairs, those of the subject of this note are quite glabrous. It is a hybrid of garden origin.—E. B., Queenstown.

Flavour in Apples.—Mr. E. A. Bunyard (page 57, January 29) says, "To elevate Cox's Orange Pippin to the summit of all Apple flavours is to misrepresent the whole question." Does he not throw his whole case away a little later when he says, "I boldly declare my preference for the more finely balanced flavour of an Orleans Reinette or a Claygate Pearmain"? Then he goes on to say that this year, owing to an unfavourable season, these queenly (?) fruits are but shadows of their real selves. I note he does not say that Cox's Orange Pippin has suffered in the same way; neither have I heard anyone say so. Now, if this Apple will succeed so well in an adverse season, surely it is superior to others which require special weather conditions to bring out the flavour. This is a distinct reason why Cox's Orange Pippin should now be more extensively planted than ever. An Apple that is generally looked upon

as the king of varieties for flavour surely should not be passed by, even because so great an authority as Mr. E. A. Bunyard elevates to the highest pinnacle a little-known variety. I note Dr. Hogg does not mention Orleans Reinette, nor can I find it in Messrs. Bunyard's catalogue. Does anyone know anything about the variety?—E. M.

Cypripedium fairrieianum.—I was very interested in Mr. Woodall's "Notes from the Riviera," especially the reference to *C. fairrieianum*, when he asks, "Are the imported plants of this charming little *Cypripedium* beginning to fail and lose their vigour in English greenhouses, as did the first importation years ago?" I am afraid the answer to this question is, to a great extent, in the affirmative. It does not respond any too readily to the conditions prevailing in our Orchid

(*bellatulum* × *fairrieianum*) may be cited as an example. Mr. Woodall is an old Orchid-grower, and anything he says in regard to these plants is always read with interest by other orchidists. Like him, I admire the lighter and more elegant form of the *Cypripedium* he refers to, and the hybrids are a pleasing contrast to the somewhat stiff and formal type so often seen to-day.—T. W. B.

Galanthus byzantinus.—It is specially interesting to one who knows something of *Galanthus byzantinus* to see the delightful notes and the drawing by Mr. Bowles of *Galanthus byzantinus* in THE GARDEN of February 5, page 64. Somewhere about 1891 Mr. Van Millingen, who was then living at Broussa, sent me some Snowdrops as "*Galanthus plicatus*" which were collected on the Asiatic side of the Bosphorus. (*G. byzan-*

tinus as described first was said to come from the European shores.) On these flowering I discovered that they were not *G. plicatus*, but were apparently hybrids, some of the flowers coming close to those of *G. plicatus* and some to *G. Elwesii*. At that time I was in frequent correspondence with the late Mr. James Allen, and I sent him some plants in flower to ascertain his opinion. He was rather puzzled with them, and suggested that I should send flowers and leaves to a high authority, who is, though not immaculate, almost absolutely correct. I did so, and received the reply that the Snowdrop was *G. plicatus*. This I could not accept, and I came to the conclusion that it was a natural hybrid. This was borne out by the information from Mr. Van Millingen that it was found in a locality where *G. Elwesii* grows. When Mr. J. G. Baker's description of *G. byzantinus* appeared, I was satisfied that my plants were of that "species." I again communicated with Mr. Allen and he sent a specimen to the authority already referred to, with the result that his was said to be "near *G. byzantinus*." It undoubtedly was this. These plants produced from the bulbs sent me from Broussa, of which I had a hundred or so, were most variable, but almost every one had the plicate leaves of *Galanthus plicatus*, though some had the ordinary Snowdrop leaf. The flowers, however, varied greatly, and some showed more than others the influence of *G. Elwesii*. This appears to be entirely present in



THE LITTLE-KNOWN GARRYA THURETI, A HYBRID OF GARDEN ORIGIN.

houses, and we now seldom see such fine examples as when it was re-introduced a few years ago. I never tried it in a frame, but Mr. Woodall's suggestion may prove the secret of success. He compares it with *C. insigne* in regard to the amount of cold it will stand. I agree that useful *Cypripedium* will produce flowers in a low temperature, but they are never so fine as when given a warmer house and more generous treatment. Personally, I do not think there is much interest taken in *C. fairrieianum*, and from a hybridist's point of view it lacks size and that roundness and flat dorsal sepal which is so eagerly sought after to-day. I remember the flourish of trumpets when it was re-introduced, and one noted grower predicted great things; but, alas, the hybrids from *C. fairrieianum* are passed by, with the exception of a very few, of which *C. Iona Priory* variety

Mr. Bowles' *G. byzantinus*, as will be seen from his charming drawing on page 64. I did not, however, find this Snowdrop a very satisfactory one. Even in light soil it did not thrive. At that time, in my former garden, I lost a good many Snowdrops from Snowdrop white mould, *Botrytis galanthina*. These *byzantinus* plants seemed particularly liable to this pest, and most of mine succumbed. I was not, however, greatly impressed with the great majority of these collected plants. Many of them were mediocre in beauty, others were vastly inferior, and only a few could come up to the high-water mark shown by this Snowdrop as grown by Mr. Bowles. It is a pleasure to know that it has done well in that delightful home of flowers at Myddelton House, a visit to which is an education in gardening and a source of never-forgotten pleasure.—S. ARNOTT.

Fairy Roses.—I do not see how "Danecroft's" quotation of the old saying that "a cobbler should stick to his last" applies to what I wrote about Fairy Roses. Everyone knows the small indicas—the Lawrenceanas—were called Fairy Roses, and that once upon a time there were many named varieties. I can only presume from "Danecroft's" remarks that he has never grown or seen the little Fairy Roses about which I wrote. Yes; cobblers *should* stick to their lasts.—JOSEPH JACOB.

Viola arborescens.—I wonder if any reader of THE GARDEN can give me the benefit of his experience in cultivating this plant, which I have never seen, not even at Kew. In the illustrations in floras of the Western Riviera it appears to be a beautiful plant, and certainly a Violet which grows in the form of a shrub (or perhaps a tree, as its name suggests) should be decidedly interesting. Perhaps someone knows to what height it grows. I doubt if it would be hardy here except quite in the South.—W. HERBERT COX, 9, Gray's Inn Square, W.C. [This question was referred to Mr. E. A. Bowles, who replies: "Not in cultivation so far as I know. L'Abbé Coste in his 'Flore de La France' gives 10cm. to 20cm. as its height. Found in France only on the coast in Var, Buches-des-Rhône and L'Aude, and elsewhere in the Balearic Isles, Spain, Portugal, Morocco and Algiers. It would not be over hardy."—ED.]

The Early Trumpet.—Unlike the folk mentioned by Mr. F. Herbert Chapman in his entertaining account of Narcissus Réveillé, I envy him, entirely without malice, his happy way of naming novelties. Many children, human as well as floral, have to travel this vale of woe burdened with the folly of their begetters; but Mr. Chapman sends his floral babies out into the world with delightful names. Surely it is not only we who have borne arms who can appreciate the subtle appropriateness of the Early Trumpet? If so, then Shrove, the name which Mr. Chapman gave the charming Narcissus with the pancake-shaped corona last Shrovetide, can appeal only to the clerical mind, "which," as our old enemy would say, "is absurd."—A. CECIL BARTLETT.

The Hardiness of Primula kewensis.—I see an enquirer asks if Primula kewensis is hardy, or as hardy as P. malacoides. I should say certainly not under English skies, for P. kewensis enjoys a sunny position here on the Riviera and soon suffers in the cold, while P. malacoides withers up and dies as soon as the March sun arrives, and is really happiest in shade, though it is so accommodating that if there is a bad corner where other things will not grow, one puts in P. malacoides to fill the gap. It damps off so readily under glass that it is wonderful how it stands heavy dews in the open air, where P. kewensis would soon cease to exist if a fit of cold weather from the mountains were to arrive.—E. H. WOODALL.

Desfontainea spinosa.—I am glad to read Mr. Arnott's praise of this beautiful shrub (page 69, February 5), which should be far more commonly seen than it is, were its simple wants more often provided. These consist of moisture, with effective drainage, soil free from lime, a liberal admixture of peat and loam, with an occasional mulch of leaf-mould. It cannot display its quality if the soil is liable to summer drought, or if it is exposed to parching winds. Five or six years ago I measured the largest Desfontainea known to me. It is at Stonefield, Captain Campbell's beautiful place on Loch Fyne. This specimen was then 12 feet high and 114 feet in

circumference. It would have been even larger had not one side been cut close back to clear a gravel path.—HERBERT MAXWELL, Monreith.

Large Vegetables Again!—As a thrifty housewife I feel impelled to "go for" that large boiled Onion of Mr. Beckett's with my "trusty steel" two-pronged kitchen fork. Mr. Beckett contends that everyone must want large Onions for boiling. They may be required in such "stately homes of England" as he is accustomed to (and in work-houses and lunatic asylums), but the majority of English homes are not "stately," and where the household numbers some six to twelve persons, there are serious objections to large vegetables which must be cooked whole. They require large, expensive saucepans which take too much stove space, especially if gas cookers are used. They take much longer to cook, and so require more fuel, a point gardeners do not, will not and cannot grasp, apparently, but which those who pay for it have to take into consideration.—ANNE AMATEUR.

Schoolboys' Collection of Vegetables.—I am sending you a photograph of a collection of vegetables grown by the Kemsing schoolboys, which

sailors in the North Sea. The vegetables in the group are Celery, Beetroot, Cauliflower, Cabbage, Cos and Cabbage Lettuce, Runner and Dwarf Beans, Peas, Red Cabbage, Onions, Leeks, Shallots, Potatoes, Turnips, Parsnips, Long and Horn Carrots, Vegetable Marrows, Brussels Sprouts and Parsley. Fruit: Apples Cox's Orange Pippin, Bismarck, Lord Derby and Bramley's Seedling.—M. NICHOLLS.

Escallonias in a Seaside Garden.—In an interesting article in THE GARDEN of February 5 on "Chilian Plants in South-West Scotland" I see a note on Escallonias, and it may interest some of your readers to know of the phenomenal growth of Escallonia macrantha in this sea-girt isle of Southern Britain. I have just been obliged to cut down an enormous specimen on my lawn, as it threatened to engulf the garden if left standing indefinitely! Two beds of tree and herbaceous Pæonies were already nearly swallowed by it. It measured over 100 feet in circumference and was about 12 feet high. It was a veritable jungle of layered branches within, growing all around the original main stem.



A CREDITABLE COLLECTION OF VEGETABLES GROWN BY KEMSING SCHOOLBOYS.

should be of interest to your readers, especially at such a time when it is necessary that every inch of ground in a garden should be made good use of. A few particulars respecting the boys and their garden might induce others to make a similar attempt, and you will agree that the group consists of first-class produce. The garden consists of one acre, on practically a chalk bank, and it was fenced in the spring of 1914. The first season the boys trenched their plots to a depth of 2 feet. Owing to the season being late before starting, the remainder of the garden had to be treated with one spit digging only. The following season the whole garden was trenched 18 inches to 24 inches deep, this plan being adopted again this year. Bringing the chalk to the surface the first year of working appeared as if we made a great mistake, but the photograph shows how necessary it is to practise deep cultivation if one wants to grow good vegetables. The number of boys is fourteen, their average ages twelve and a half years. The produce is distributed among the boys, and some days they go home heavily laden. Quantities have been delivered to the village hospital for the wounded soldiers, and to our

The bush was a large one when I first remember it thirty-five years ago. How much older it may have been I cannot now tell. In the hard winter of 1895 it was severely hit, and was cut back then to about 3 feet from the ground, so that the subsequent growth dates from then. Every year it was severely pruned at the sacrifice of a certain amount of blossom, but in spite of this it was a mass of bloom in June and July, and again in early autumn. We are at this moment burning Escallonia logs of very respectable dimensions! I have left one of the young layered branches, which in time will, no doubt, grow as large as ever again. We had another bush of Escallonia which we looked on as the "small one" and which measured 94 feet round, and this I had to have entirely cut out owing to its encroachments three years ago. It is quite possible to have too much of even a good thing, but there is no doubt that E. macrantha, with its lovely mass of cherry pink flowers, glossy, dark green leaves and clean aromatic scent, is a first-rate shrub for seaside gardens.—S. PRENDERGAST, Windcliffe, Niton, Undercliff, Isle of Wight.

NEW AND RARE PLANTS.

AWARDS OF MERIT.

Berberis japonica hyemalis.—This is the form which for some years has been in circulation as *B. Bealei*, and it is not only a true winter-flowering variety, but one of the most ornamental. The fragrant, yellow flowers are produced in numerous, somewhat attenuated, horizontally inclined racemes. These cluster together at the summit of an erect, unbranched stem furnished with 18-inch long shining, pinnate leaves, the leaflets strongly armed with spines. From Mr. G. Reuthe, Keston, Kent.

Berberis japonica Bealei (true).—This form is characterised by paler yellow flowers in sub-erect racemes—the latter less numerous produced—longer and more handsome pinnate leaves, with somewhat overlapping lobes. Somewhat later in flowering, its flowers are also less fragrant than the above. A striking plant, attaining fully 6 feet high. Both are of the highest value and ornament in the garden during the winter season. From Elizabeth Lady Lawrence, Dorking (gardener, Mr. W. Bain).

Lachenalia Rosemary.—A new and brilliant hybrid form of considerable vigour. With leanings to the "tricolor" set of this race, it may briefly be referred to as a vastly improved variety of it; improved in stature, brilliancy of colour and general effectiveness, and removed from all else by the pronounced crimson flounce bordering the tubular, well-formed flowers. A good advance on anything we have seen. It was well shown by the raiser, the Rev. Joseph Jacob, Whitchurch, Salop.

Odontoglossum amabile McBean's variety (large plain *O. crispum* × *O. crispoharryanum*).—A plant bearing a five-flowered raceme was shown. The flowers are of exceptional size and, save for the pink-tipped, pink-flushed margin and pronounced white lip, are coloured reddish bronze. A very striking variety. From Messrs. J. and A. McBean, Cooksbridge, Sussex.

Cymbidium Alexanderi aureum.—The varietal name is fairly descriptive of one of the most distinct of this valuable set of winter-flowering Orchids. The yellowish sepals have a suffusion of rose; the lip is crimson. From Messrs. J. and A. McBean.

Lælio-Cattleya Buenos Aires (L.-C. *bletchleyensis* × *C. Enid*).—Sepals and petals deep satiny rose, lip large and coloured a deep crimson purple. Shown by Mr. Miquel Lacrose, Roehampton Lane.

The foregoing were exhibited before the Royal Horticultural Society on February 8, when the awards were made.

FORTHCOMING EVENTS.

February 22.—Royal Horticultural Society's Meeting and Exhibition, 1 p.m. to 5 p.m. Royal Horticultural Hall, Vincent Square, Westminster.

February 29.—Royal Institution: Lecture by Dr. E. J. Russell on "The Plant and the Soil."

NOTES FROM MYDDELTON HOUSE GARDENS.

By E. A. BOWLES, M.A., F.L.S.

I HAVE often thought that if one could—in a make-believe world, of course—leave out a part of the year, from Advent to Septuagesima would be the portion I should select. If only one could run a tuck in it, so to speak, to be let out again when May is what an English May should be, with Apple blossom and Lilac and Tulips and the

season the weeds have surpassed the widow's cruse for inexhaustible reproductivity. That never failed, but they have increased by geometrical progression, and rooting them out only prepares the ground for another crop. I have been thinking of carpeting a bed with that greenest of dwarf grasses, *Poa annua*. It would look charming, but the danger would consist in its disguising and protecting from destruction the early stages of other grasses far more wicked than itself. Then, again, when certain flowers are at their best, I feel it is a waste of opportunities and an insult to their generosity if I do not visit them and rejoice in their beauty at least once a day. Although we have not yet done with Sundays after Epiphany, there is more to look at than many a Septuagesima week has afforded. First, there is the Crocus Mr. John Hoog so kindly named for me, as Americans say. It is now at its best and deserves all the pretty things Mr. Jacob said of it in THE GARDEN for January 29, much more than I do the pretty things he said of me. I never before thought of it as newly hatched chick colour, but see it now; and it is one of those that have soft brown markings on its wings. For one of the chief charms, to my eye, of Crocus *chrysanthus* E. A. Bowles is the patch of soft grey-brown at the base of each segment. In a tight bud its cool, soft buttery yellow and this dark blotch remind me of a candle flame, the grey patch representing the dark portion that surrounds the wick inside the flame. I can always see my Crocus when I look at a candle flame, but I much prefer seeing the candle flame in the Crocus. Mr. Jacob is right, and I am indeed lucky to have such a beautiful flower bearing my name.

The species look that Mr. Jacob remarks upon is very marked, for it is a seedling of a wild form of *chrysanthus* known as var. *pallidus*, at one and the same time the most robust and yet most refined of all the wild yellow forms of that variable species. In Mr. Van Tubergen's delightful nursery at Haarlem it seeded freely and gave rise to a very distinct and variable race, most of them being larger than their parent and yet preserving the beautiful gourd shape of the flower. One of these lovely children is the charming blue and white form Mr. Hoog named *C. chrysanthus* Warley variety, after Miss Willmott's wonderful English garden, in which so many floral treasures, created in foreign lands, have flowered for the first time in England. Now, there are brothers and sisters of this good-looking family ranging from white to deep yellow, with every degree of feathering or suffusion of blue, bronze or purple on their outer segments.

A group of them, sent me by their generous raiser, has been wonderfully beautiful this last



THE NEW LACHENALIA ROSEMARY.

first Iris florentina flowers and hundreds of other good things calling for the admiration that there never is time enough to bestow thoroughly.

This season, however, is such an extraordinary one that there is so much to look at and so much to do in the garden that even this belated Septuagesima will come too soon, unless the Sword of Damocles, the deferred winter, falls on us before then. I could spend the whole day from dawn to dusk among the Crocuses, selecting seedlings of promise from the seed-beds, if there were no Snowdrops to examine and make figures of, and no weeds rushing into flower and seed. This

fortnight, but I still think my namesake is the best of all. The old Dutch Yellow Crocus is a charming sight in late winter, but it looks tawdry and coarse beside the soft moonlight yellow of these latter-day Dutch seedlings.

C. chrysanthus is the species that has given me the most exciting of all my seedlings in what I call my Crocus factory—really a row of small beds. Two of these have pots sunk in them, in which the seeds are sown. Last year's seed, just appearing like fine grass, fills one set of pots; the other set contains little plants of the year before, with leaves as broad as those of a full-grown Crocus. Then of the other beds each represents a year's sowing, so that the oldest has been undisturbed, save for the extraction of promising youngsters as they flower, for four years.

On sunny mornings I like nothing better than squatting on my haunches in true Oriental fashion in front of these beds, my trusty cook's fork in hand and a bundle of labels in my pocket, to run my eye along the rows looking for some flower of superior beauty or new pattern or colouring, to be removed to the frame's protection till it grows into a stock large enough to send out in the world.

Nothing very startling has appeared yet this season, but I have picked out some purer whites, deeper blues, and clearer sulphurs than ever before from the rows of *chrysanthus* seedlings. I am most pleased with these sulphur and primrose forms; they are so refined and delicate compared with the deep yellow and orange Spring Croci, of which there are so many.

Mr. Barr gets some among his seedlings, and showed a beauty as Lemon Queen last spring. It is now in flower in my frame beside my own seedling that is nearest to it, and mine may be a trifle brighter in its sulphur tint, but they are wonderfully alike, and I think both must have resulted from a crossing of *chrysanthus* and the white form of *biflorus* *Weldenii*.

Some of my latter-day sulphur forms have rosy or purple featherings or suffusion on the outside, and are very attractive when half open. I am naming these *chrysanthus* seedlings after birds that they remind me of—and some have already taken flight into the world from the parental nest. Bullfinch is my favourite, chubby and round, white inside, but exquisitely feathered with crimson outside. Its chubbiness in bud suggested the name. Siskin is golden outside and white inside, a tiny form but dainty, though later seedlings, not yet ready to fly, have surpassed it. Snow Bunting is good, large and white with grey lines outside, and such a good doer; I hope

it will fly far. Yellow Hammer is bright yellow, very clearly feathered with black, and the most generous in the number of its flowers of all. Golden Oriole, rich yellow with deep purple bronze exterior, is almost fully fledged, and one of those Mr. Elwes' keen eye singled out as a rare bird when he was here the other day. Silver Pheasant reached a few Crocus-lovers last autumn.

clumps that are best both have *Cyclamen ibericum*'s handsome marbled leaves and crimson flowers for neighbours, and remind me pleasantly of the masses of both at Bitton. A fine bold Snowdrop from an old garden in Holland, discovered and sent out by Mr. C. G. Van Tubergen as *Galanthus nivalis maximus*, has delighted me more this year even than last. It looks to be a good doer, and among it is a handsome variety with large green tips to the outer segments; and every offset from those that wore these emerald studs last year is doing so now. So the variety will certainly prove constant.

G. n. Melvillei, from Dunrobin, is very good to-day. Its flowers are larger and rounder than those of common *nivalis* and the green horse-shoe mark is very slender, so that the flowers look extra pure and white. The form called *poculiformis*, in which the inner segments should be as long and as purely white as the outer, is playing tricks this season, and few flowers have come true to their best traditions, their inner segments being irregular, crisped and curled, and some have fallen so low that they are spotted with green. The larger and better of the two so-called yellow Snowdrops, *G. n. flavescens*, is very good; the gold of its ovary and markings is brighter than usual. The yellow form of *G. plicatus* is hardly out, but as its leaves are yellowish it catches one's eye from a distance. The double yellow is late and only just showing its flowers. *G. Allenii* is at its best the mild nights have allowed the flower-stalks to run up before its great Tulip-like leaves have become coarse, and in this condition it is one of the best of all—that is to say, when one has a good form of it, for it varies, and I have so many plants intermediate between the tall, large-flowered beauty and the dwarf *G. latifolius* with the insignificant flowers, that I think they must be two extremes of one and the same species, in spite of the brilliant green of the leaves of *G. latifolius* and the deeper and slightly glaucous tone of those of *Allenii*.

Though these rarer Snowdrops cannot give us the drifts and carpets we like to see from the commoner forms, they add a great charm and interest to the rock garden at this time of year, and the contrast between the little groups is quite sufficiently marked

to please and interest those who are not yet Snowdrop experts.

Last season I flowered for the first time *Anemone caucasica*. It was so early, so blue, and so dainty that I wanted more, and ordered and planted them this autumn. I am delighted to see that both the new and old plants are happy and flowering well, and the latter have increased considerably.



CROCUS CHRYSANTHUS E. A. BOWLES.
(Natural size. From a drawing by E. A. Bowles.)

and I hope is as lovely with them as here. Of course it is white, and feathered outside with purple, but in the most delightfully symmetrical way and with the finest imaginable lines. Golden Plover is its counterpart in yellow, but I am still looking for one good enough to be Golden Pheasant.

Then there are Snowdrops. The long bells of *Imperati* are very fine this season, and the two

THE NORTH BORDER.

IN very many small gardens (particularly in towns) one finds a fairly wide border facing the north, of which little or no use is being made, for it is soon discovered that the majority of plants fail to thrive with such an aspect. Presuming that the border is bounded by a wall or fence which effectually shields it from the sun's rays for the greater part of the day, it is obviously useless to expect the same long-continued display of colour there as in other parts of the garden. On the other hand, there are a number of plants, beautiful alike in flower and foliage, that will revel in the cool soil of a north border and become objects of interest throughout the year. The soil of a north border must, of course, be as well dug and liberally treated as that in the rest of the garden. If it slopes slightly to the east,

As these earliest flowers begin to wane, the dainty little Buttercup Anemone (*A. ranunculoides*) and the double form of our Wood Anemone (*A. nemorosa flore pleno*) come into bloom. All these tuberous-rooted Anemones are perfectly easy to grow, but they resent being dried off and left long out of the soil, so that it is better to plant them in full growth rather than wait for dried roots sent out by bulb growers in autumn. The red, blue and white Hepaticas are never so happy as when left to form big clumps in rich soil in a north border. They take some time to become established, but in many gardens sow themselves freely and blossom with the utmost liberality. The largest form is the blue Hepatica (*Anemone Hepatica triloba*), and recently a lilac form has been listed in the catalogues. Unlike the other Anemones mentioned, the Hepaticas retain their foliage throughout the year, and always look neat and comfortable. Where there is room for it, the Snowdrop Anemone (*A. sylvestris*)

strong grower it is better suited to the wild garden. Choicer species for a north border are *E. alpinum*, *E. muschianum*, *E. niveum* and *E. macranthum*. Somewhat similar to the Epimediums and still less frequently seen is *Vancouveria hexandra*, a particularly dainty plant with most attractive foliage and curiously shaped pale flowers.

The Hellebores (Lenten Roses) are ideal plants for the north border. Their evergreen habit is always pleasing, and the flowers are invaluable for house decoration in February and March. Many very handsome varieties have been raised by careful hybridisation during recent years, and they may be obtained in charming shades of pink and carmine to deep purple and pure white. They require a rich soil and an annual mulching of manure, for they are hungry plants and soon exhaust the soil. The popular Christmas Rose (*Helleborus niger*) is not nearly so easily established in most gardens as the Lenten Roses, but is always worth trying in a shady and not too dry border.

Of the wild species from Southern Europe, the most beautiful is *H. corsicus*, with very deeply cut, glaucous foliage. Our native *H. foetidus* and *H. viridis* are too coarse for a choice border. Another charming foliage plant, though of a very different type to the Hellebores, is the Fern-leaved Fumitory (*Corydalis cheilanthesifolia*), which is never seen to better advantage than in a north border. It throws up an abundance of quaintly shaped, lemon-coloured flowers throughout the summer.

The various species of hardy Cyclamen are perfectly at home with a minimum of sunshine, and will thrive even among the roots of deciduous trees; but to have them in their full beauty they should be provided with plenty of leaf-mould and lime rubble in the soil. They bury their seeds underground in a curious manner, and self-sown seedlings appear freely beside established plants. They are, however, somewhat slow in reaching flowering size. It is better to obtain pot-grown plants than dried-off corms, as these

sometimes lie dormant for a whole year after planting. *Cyclamen neapolitanum*, *C. Coum*, *C. ibericum*, *C. repandum* and their white varieties are all easily grown, and bloom from August to March in the order in which they are written.

At the lowest and dampest end of the border will be found a capital site for several of the greatest gems of the floral world, for here the Chinese and Himalayan Primulas will revel in the cool conditions, and in early summer will give a wonderful wealth of colour. *Primula pulverulenta* is the noblest of its class, a recent importation from Western China. Its ruby red flowers are borne tier upon tier on a stout, mealy stem over 3 feet high, and it is as hardy as an English Primrose. Then there is the beautiful lilac Himalayan *P. denticulata*, with its larger, mealy-stalked cousin, *P. cashmeriana*; and for the very dampest available spot the incomparable *P. rosea*, whose blossoms are such a vivid hue as to defy description. *P. capitata* is a handsome biennial of the denticulata



THE SPRING FLOWERING ANEMONE APENNINA IN A NORTH BORDER.

so much the better, as the lowest portion will provide a congenial home for moisture-loving Primulas and similar plants.

For the early spring a number of small bulbous-rooted plants may be relied upon to give a bright show of colour, such as *Scilla bifolia* (blue) and its exquisite white variety, the slightly later and more vigorous *S. sibirica*, the dainty little azure Grape Hyacinth (*Hyacinthus azureus*), the various species of Muscari, *Chionodoxa Luciliae* (pale blue and white), the glorious gentian blue *C. sardensis*, and the charming and accommodating *Anemone apennina*, whose blue flowers nestle in the emerald green, delicately cut foliage and remain in bloom for many weeks. This last species, moreover, thrives in very dry soil, even close against the trunks of deciduous trees. It increases rapidly, and is in every way a highly satisfactory plant. A light top-dressing of good soil in autumn will render the spring growth more robust.

deserves a place in the north border. It is a lovely plant, not unlike a small edition of the Japanese Anemone; but it flowers in spring, and its silky white blossoms droop like Snowdrops. As it does not bloom freely until it has appropriated a good deal of ground, it is not very suitable for a small border.

A plant seldom seen, but none the less a very beautiful one, is the Bloodroot or Puccoon (*Sanguinaria canadensis*). It has pure white starry flowers with golden anthers, and very handsome grey foliage. It likes a deep loamy soil and not too frequent disturbance. The thick tuberous root of this plant exudes a red dye which was used by the American Indians as a war paint.

The Barrenworts (Epimediums) are very useful both for foliage and flower, and are especially pretty in spring and autumn. The dead leaves should be left on the plants in the winter, as they afford a protection to the young buds. *E. pinnatum* is the best known, but being such a

type, with deep violet purple flowers in flattened heads in July and August. Another biennial of unrivalled colouring is *P. cockburniana*, bearing slender sprays of rather small orange scarlet flowers. Several other species of great beauty have recently been introduced, and are all highly welcome additions to our gardens. All these *Primulas* demand a considerable amount of moisture during the growing season, and a cool soil with abundance of leaf-mould. The tubers of the beautiful Wood Lily (*Trillium grandiflorum*) may be planted between the *Primulas*, as it delights in similar conditions, and its pure white, three-petalled flowers associate well with early *Primulas*. Where there are evergreen shrubs or trees at the back of the north border, a few tubers of the vivid scarlet Flame Flower (*Tropæolum speciosum*) should be planted. It is a capricious plant, but

October. This is the only *Crocus* species which can be recommended for a north border, most species only fully expanding their segments in full sunshine.

If the border is raised a little above the ground level and has a rock edging, it will provide a home for many charming rock plants which dislike a sunny exposure. Best of all for such a site are the Mossy Saxifrages in their splendid new hybrid varieties, *e.g.*, *Miss Willmott*, *Clibranii*, *Arkwrightii*, *Codsall Cream*, &c. *Arenaria balearica* spreads an emerald carpet close against the stones, and is bespangled with tiny white flowers in spring. *Gentian* makes a neat edging, but does not flower freely in shade.

Nearly all Daffodils thrive in a north border, but are, of course, later in flowering. There are a few varieties which only succeed with a northern

is surely far better to confine one's attention to plants which may reasonably be expected to thrive there than to struggle on with notorious sun-lovers like the Sweet Pea or tender bedding plants like the *Pelargonium*. N. G. HADDEN.

THE YELLOW BANKSIAN ROSE.

WHERE an available site—south or west wall, the higher the better—exists, this Rose should succeed. No Rose gives more pleasure than this when smothered with its small rosette-like blooms, and, being almost evergreen, it is extremely useful for covering walls. Considering it is more than eighty years since it was introduced by Dampier, the wonder to me is we do not see more



NARCISSUS PALLIDUS PRÆCOX NATURALISED UNDER FILBERT TREES.

often succeeds if the roots are in a cool, shaded position and the stems able to ramble up into sunshine over the branches of a shrub. The yellow *T. polyphyllum* is another charming climber of similar habit, but much more easily established. Most Clematises thrive best with their roots in shade, but they must be able to reach plenty of sunlight as they grow up.

Michaelmas Daisies thrive very well in a north border, and under the cool conditions there are less liable to be attacked by mildew in hot, dry seasons. It is better to plant only early and midseason varieties, as they naturally flower later with a northern aspect, and the late varieties are apt to be cut off by frosts. If the soil near the Michaelmas Daisies is freely planted with the blue purple *Crocus speciosus*, a charming picture of colour will result in September and

aspect, and these certainly deserve a place. The best, perhaps, are *Narcissus albicans* (Dutch moschatus) and the Pyrenean moschatus of Haworth, both exquisitely graceful white varieties. *N. pallidus præcox* is a pale cream coloured early flowering sort. [On certain soils it has a decided tendency to deteriorate when planted for natural effect. Not so, however, in the grounds at Eden Grove, Carlisle, where it is quite at home under the Filbert trees and increases each year.—ED.]

Tulips are useless in a north border, and all the members of the sun-loving *Iris* family will be happier elsewhere, although the large German Flag Irises grow and bloom fairly freely in shade.

Enough has been said to show that the north border is quite capable of being made as attractive as any other part of the garden, if only a little trouble is taken in choosing its occupants. It

trees of it. It is not unusual to find an isolated example having a stem 6 inches in diameter with a few straggling branches at the top. Still, quantities of flowers are to be found on such trees, showing well the tenacity of the variety.

Of all Roses, perhaps this requires less pruning than any. The plant should be induced to grow away vigorously at the start by deeply working the soil, to which should be added plenty of manure and abundance of water during a dry spell in the summer. When once the tree has generally covered its allotted space, any useless growth afterwards that has flowered should be annually cut away directly the blooming period has passed, allowing space for subsequent growth to be matured fully the same season; this will give a full flower crop the following season.

S. H.

THE MAKING OF GARDENS.—II.

By G. DILLISTONE.

SURVEYING THE SITE.

MAKING a survey is the taking of such measurements as are necessary to prepare a plan drawn to scale, that shows as far as possible all the essential objects within the area included. Plotting the survey is to prepare drawings from the measurements and notes taken on the ground, and to secure a map showing all fences, trees, buildings, watercourses, &c., necessary for the purpose of considering each separate detail by itself, and also in its relation to its surroundings. Moreover, it assists in getting a far better idea of the relative proportions of an area than can be obtained by merely viewing the land. In the plan, the whole area is spread before our gaze and its salient features can be appreciated in truer perspective.

The best method of taking such measurements is with a 100-foot chain (Gunter's chain of 100 links = 66 feet is frequently used). The chain consists of a number of steel links, each 1 foot long, and is divided into 10-foot lengths with brass tabs, as shown in Fig. 2. These tabs are dented, each tooth representing 10 feet; thus, two teeth equals 20 feet from end of chain, three teeth equals 30 feet from end of chain. The centre is marked by a disc without teeth, and from both ends of the chain the tabs are dented to mark 10 feet, 20 feet, 30 feet, 40 feet, respectively. In addition to the chain it is usual to employ a tape measure on a reel; a field book, which will be illustrated later on; a pencil and piece of rubber, the latter to erase and correct indistinct or erroneous entries, which is cleaner and better than crossing out or writing over an error; a set of painted stakes, called ranging poles; and

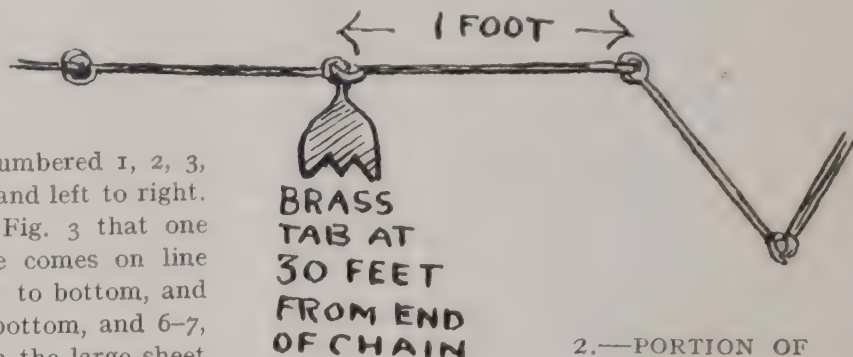
rule off a rectangle thereon that includes within it all the area of the land to be surveyed, and enlarge it to such a size as can be comfortably carried in the hand and referred to as occasion arises. The method of enlarging is as follows: Carefully and accurately rule the rectangle on the ordnance map into a number of equal squares. Then rule the sheet of paper on which the enlargement is to be made into an equal number of squares.

Each line of squares should be numbered 1, 2, 3, 4, and so on, from top to bottom and left to right. It will be seen by referring to Fig. 3 that one corner of the plan of the house comes on line 1-2, left to right, and 4-5, top to bottom, and another corner is in 4, top to bottom, and 6-7, left to right. Fix these points on the large sheet in the corresponding squares, and go on until the whole is complete, when it will be found that an accurate enlargement has been made—that is, twice, three, four, or five times as large as the ordnance map, as the case may be—and the ordnance scale can then be enlarged in proportion and will be accurate for the larger plan. I suggest that it will be as well if the reader now enlarges the plan of Mervale Hall Estate by this method, and thus get familiar with the details therein, and also have a copy of the plan for future reference and development.

The ordnance map will not, however, contain all the details that are necessary for garden-making, and the ground must be more minutely measured. Moreover, changes have taken place in the ten years which have probably elapsed since the most recent map obtainable was made.

To obtain an accurate survey, proceed as follows: First walk carefully over the ground with the enlargement in your hand, and pencil thereon any radical changes in the situation, such as new buildings, or old ones removed, or there may be fences that have been moved. Having by this means gained a general idea of the site, the

a position that it can be prolonged throughout the entire site, where this is practicable, but as the position of the lines must be in fairly close proximity to the objects to which off-sets are to be measured, it is not always possible. This is the case in the situation under consideration, and if the plan,



100-FOOT CHAIN FOR MEASURING LAND.

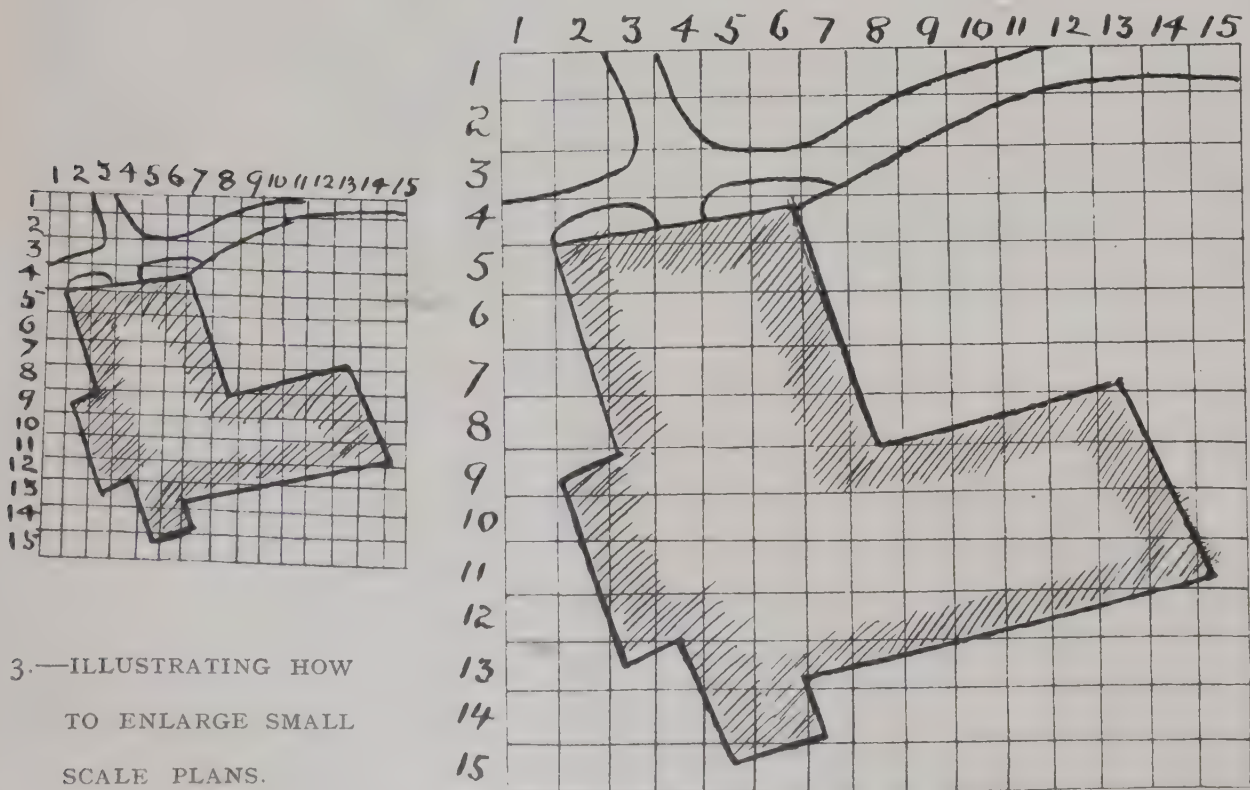
Fig. 1, that appeared in *THE GARDEN* of February 5, or an enlargement has been made as previously suggested, is referred to, in the north-east corner of the field No. 2, in the centre of the gateway, will be seen a mark A, which implies that it is here the commencement of measurements begins. A stake is placed at this point, and another at point B, and it is between these two points that the first series of measurements is taken. Two men each take an end of the chain; one stays at A, and the other proceeds towards B until the chain is fully extended. The surveyor directs the leader (the man nearest B) to move to the right or left, until the line of the chain is perfectly direct from A to B. The chain is then laid down and a peg or painted stake placed at the end, thus marking 100 feet from A. Having determined this line, which is called a base line, the next step is to measure the off-sets and enter them in the field book, the method of doing which will be explained in the next article.

TULIP TITTLE-TATTLE.

By THE REV. JOSEPH JACOB.

LIKE all human beings with a past, the Tulip has been a great deal talked and written about. It made its mark by luring hundreds of Hollanders into poverty or beggary in the first half of the seventeenth century. From that time forward, like a first-class criminal, it has been in the limelight. The smallest details of its life have been recorded, and quite a respectable literature has in the course of time grown up round it.

History, however, tells us that, except for those three or four years when, as it were, it ran amok, its course has been like that of Gilbert and Sullivan's enterprising burglar when not a-burgling; much like that of any other flower with great potentialities of colour, markings and form. The truth is, its delinquencies were almost immediately forgotten, and it has retained its place as a first-class garden occupant ever since. The interesting cicerone, when one is being taken round to see the flowers, is the man or woman who can talk and tell us of "more than meets the eye." A personal anecdote, a little bit of floral history, some idiosyncrasy on the part of the plant, a point about its culture and so on, all help to make our visit interesting. By the way, why should not every owner and gardener try to make themselves into good showmen? I can assure them



3.—ILLUSTRATING HOW TO ENLARGE SMALL SCALE PLANS.

a 5-foot rod marked in inches. So much for the instruments required. Now as to the method to be pursued.

If the area is considerable, it is a great advantage to obtain an ordnance survey map of the position,

next step is to proceed with the actual measuring, as follows: The use of the chain is to lay off a continuous straight line of as great a dimension as possible along the position to be measured. I always like to commence the first line in such

they would be vastly increasing their guests' pleasure if they did; not that I would for one moment suggest that they should cast their pearls before swine, for some of the people who come round are very trying and so very little interested that it is plain they only come in the most superficial globe-trotting spirit possible. The late Rev. C. Wolley-Dod was a splendid cicerone. He instinctively knew when was the time to be silent and when was the time to speak. More than once have I heard him say, "Yes, that is what we call a Columbine." "But, Mr. Dod, has it no other name?" "Oh yes, we call it a pink Columbine with long spurs." Some were lucky to get this much out of him, for the person who came just because it was the correct thing to Edge Hall Gardens and did not care a snap for flowers froze the great flow of information which was ever at the service of all who loved and cared, even if you did make horrid false quantities and use wrong names, for on these points he was something of a genial martinet; and after you had gone he might have hung them up on his study wall like he did the housemaid's dusters and brushes that from time to time he found lying about; but I am sadly digressing. I began about Tulips, and here I have got to dusters and false quantities. I wanted to use the Tulip as a sort of object-lesson of how a flower may be made interesting.

Langlois' "Livre des Fleurs."—The date of the Tulip mania was 1634-37. This very rare book is practically nothing but a collection of copper-plate engravings of flowers. Tulips are very much in evidence. The majority are obviously copied from those in the "Hortus Floridus" of Crispin de Passe, or these are copied from Langlois, or both are taken from the same original. The work is dated 1620, or fourteen years before the mania. I mention it now because its contents throw a little light on the origin of those quaint lacerated petalled flowers, the Parrots. There are in this work three or four blooms represented in which the petals are obviously not entire, but are more or less split up. These are probably the earliest illustrations of this particular development in existence, and show that "parrotting" has been known for at least three hundred years. The illustration contains that of "*Tulipa Gerardi Jacobi lutea cum rubr. flamm.*" in which two of the petals are plainly lacinated. Another—not figured here—is of "*T. Jacobi Bommi divisa et ornata.*"

Rupert Brooke's "1914 and Other Poems."—Rupert Brooke's untimely death in the Ægean is not the least disaster of the war. His sonnet, No. 5, "The Soldier" in "1914," beginning

"If I should die, think only this of me:
That there's some corner of a foreign field
That is for ever England. . . ."

will often be quoted in years to come. I mention the poet here because of a single line in a poem written in Berlin in May, 1912, called "The Old Vicarage, Grantchester." It is a contrast between his present surroundings, where he is "sweating, sick and hot," and the old home beside the Cam, where

"the dews

Are soft beneath a morn of gold."

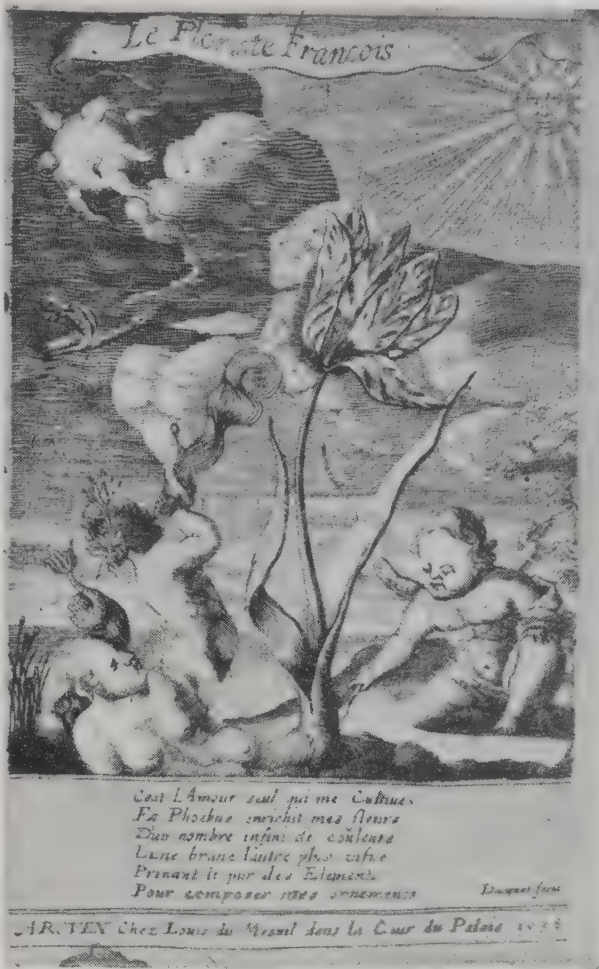
But,

"Here Tulips bloom as they are told:"

While there,

"Unkempt about those hedges blows
An English unofficial Rose:"

What Tulips were those that Brooke saw?



THE ALLIGORICAL FRONTISPIECE OF
"LE FLORISTE FRANCOIS."

It is a well-known fact that the Queen of Holland takes a very deep personal interest in the bulb industry of her country. I believe she pays a yearly visit to one or another of the great "bloomistries" (I do like this very descriptive old word) round Haarlem or Leiden. It must have been about 1911 or 1912 that the Queen sent the German Emperor a right royal present of Tulips to Berlin in order to get the flowers better known in Germany. Was it some of these very Tulips that attracted his attention? Strange if this present has been thus enshrined. "As they were to'd," at all events to Brooke the sight of the even mass was typical of the spirit of that much regulated country in which he found himself.

The Frontispiece of "Le Floriste Francois," 1658.—This book is one of my library treasures. It has a very curious allegorical frontispiece. One wishes there had been a poem like we find in Rea's "Flora, Ceres and Pomona," entitled



TULIPS FROM LANGLOIS' "LIVRE DES FLEURS," 1620.

"The Mind of the Frontispiece." We would have known all about it then. One of the figures in the frontispiece of the Tulip book (for such "*Le Floriste Francois*" is) is a mermaid or merman blowing vigorously through a shell, thereby suggesting the stimulating properties of kindly and balmy breezes. It is only recently that I have learnt about the mythological connection of these fabled creatures of the deep and wind and storm. Once it was firmly believed that "the windes blow, seas rage and clouds drop presently after they seem to call." The author of our little book could not have suggested this, for the Tulip dislikes strong wind intensely. The explanation probably is that the mermaid fable had changed with time, and that De la Chesnée Monstereul inserted the mermaid in a Shakespearean sense only. We can understand it then.

"I sat upon a promontory,
And heard a mermaid on a dolphin's back
Uttering such dulcet and harmonious breath,
That the rude sea grew civil at her Song."
—"Midsummer Night's Dream."

FLOWERING TREES AND SHRUBS.

THE beauty and interest of the flowering trees and shrubs is appealing more and more to the garden-lover; and though he may have become a garden recruit through the medium of the Rose, Tulip, Daffodil, alpine or herbaceous plant, I will undertake to say that once he has seriously commenced to explore the never-ending and ever-widening charm of the garden and all it means, he will ultimately, no matter by which route he has travelled, end up with a fixed and abiding joy in all that appertains to the growth and beauty of trees and shrubs, especially of that class generally spoken of as flowering shrubs.

I would like to urge the claims of the following few examples, and recommend to all those who have the opportunity not to let the season pass without adding some of them to their collection:

Arbutus Menziesii, a glorious tree from California.

Amygdalus davidiana alta has been glorious during January. Mr. Bowles referred to this recently.

Berberis Bealei, a glorious Mahonia now wonderfully in flower.

Berberis aggregata, said to be the finest of the new species from China. Smothered with berries in October.

Berberis Wilsonæ, often referred to. If not yet planted, do so, and plant in groups for best effect.

Cotoneasters.—Note the species mentioned in recent issues.

Cytisus Beanii, dwarf yellow, *C. Dallimorei*, rosy mauve, and *C. kewensis*, pale cream, a trio raised at Kew, and as a whole unmatched by any other three varieties.

Forsythia intermedia spectabilis, a glorious mass of yellow in spring.

Leptospermum Nichollii.—If in the South of England, plant this, and when it is covered with its small, carmine red flowers it will be a delight.

Olearias.—Of these there are many new species suitable for the gardens of the

South-West. All are beautifully grown by the Rev. H. T. Boscawen of Ludgvan, whose garden is the richest I know in its wealth of rare shrubs.

Philadelphus Virginal and **P. Bouquet Blanc**, lovely white forms.

Pyrus floribunda, **P. Scheideckeri** and **P. atrosanguinea** are all well known, I suppose; but if you can find another corner on the edge of the lawn for one of these glorious flowering Crabs, the older you grow the happier you will feel when you see it in flower each spring.

Rhododendron intricatum, a tiny Chinese alpine form. Remember this in a few years' time, when it will be plentiful. It is not so yet.

Stephanandra flexuosa, a delightful shrub because of its autumn colouring of bronzy red. Splendid for cutting.

Viburnum Carlesii, a Guelder Rose of beauty and fragrance

Viburnum plicatum.—Try this as a trained wall shrub in a cool exposure. In a few years it will surprise you when smothered in flower.

I trust these few notes may excite the interest of some readers sufficiently for them to act on the advice given. R. W. WALLACE.

ARTIFICIAL AIDS TO DAFFODIL FERTILISATION.

By THE REV. G. H. ENGLEHEART, V.M.H.

"NOVICE'S" communication on this subject is elaborate and interesting, and I thank him. But he still suffers from a curious inability to understand his correspondent. My expression that "the pollen grains found the required sugar on the surface, so did not trouble to seek it by penetrating deeper," is a quite correct one to indicate the process, especially in a condensed note. It should be obvious that I spoke of the whole potentiality and development of the pollen grain. It is the pollen grain which is, so to speak, the brain of the entire subsequent process and determines the course of the pollen tube. The clearest and most succinct account of the process known to me may be found in Kerner and Oliver's

"History of Plants," Vol. II., pages 407 and 408: "There would appear to be a taking up of fluid matter by the grain, though its exact nature has not been accurately determined. Since, however, pollen grains germinate readily in a 3 per cent. sugar solution, it is extremely probable that sugar is an important component. . . . The first demonstrable stage in the production of the pollen tube is the pushing out of the delicate inner coat of the grain in the form of a tube. . . . In all likelihood the pollen tubes are attracted by certain substances secreted by the tissues which they have to traverse in order to reach the ovules. Of these sugar seems to be the most important, and by a continuous secretion

of this . . . the tubes are led on to the ovules." In brief, the tube is led onwards and downwards by a continuous hunt for the necessary sugar, and Professor Foster's argument was that it would not trouble to hunt for that which was artificially supplied ready to hand. His theory seemed to be amply substantiated both by his and my negative experiments on a variety of flowers under various conditions, and by microscopic examination after the sugar treatment. It is not likely that a better investigation could be made than that by Professor Michael Foster with his great and exact knowledge and his full apparatus. I do not write this to prove that "Novice's" repeated experiment or his small

right kind of sugar and his own undivulged formula make against him rather than for him. If Professor M. Foster's argument is sound, then the more perfect the sugar solution the more content the pollen grains would be with it, and the less disposed to seek it by travelling.

ROSE PLANTING IN FEBRUARY.

By EDWARD MAWLEY, V.M.H.

I AM reminded of this question by recent experiences in my own garden. In November last I took up rather a large number of Roses in order to make room for the new varieties I had budded in the previous year and for any other additions I might wish to make to my collection this year. But since then the ground, until quite lately, has continued in such a sodden condition that I decided to make the required alterations this month instead; for one of the greatest helps towards enabling Rose plants to become quickly rooted is to plant them when the soil is in a suitable condition to receive them—that is to say, when, as is the case at the present time, the ground is unseasonably warm following, as February has done this year, the warmest January on record, and also at the same time fairly dry. When planting late in the winter or early in the spring, I always fasten each plant to a short but firm stake, so as to keep the new roots from being disturbed by the high winds so prevalent at this time of the year. It may be here stated that the average fall of rain in February is less than in either of the other two winter months, while the atmosphere is not so humid.

But to turn to the more immediate object of this article, viz., the best Roses to grow; for it is a question which every autumn and winter must engage the thoughts of a large number of readers, if I may judge from my own experience. The question I am most frequently asked when showing friends

round my Rose garden is, "What Roses would you recommend me to grow?" I accordingly append lists of those varieties which for their various purposes I have found to be the best, and at the same time the easiest to cultivate; in other words, those Roses which are my own special favourites and with whose habits and customs I am well acquainted.

But it may be said, "Are you inviting us to buy Rose plants this winter?" Certainly I am, as even in these hard and sad times, when strict economy is imperative, one must surely be a little extravagant in something, or life would be scarcely worth having. I, of course, use the word "extravagant" here in a relative sense, as Rose plants are cheaper this winter than I



VIBURNUM PLICATUM SMOTHERED IN FLOWER.

statistics are necessarily valueless. Fresh light and fresh results are often obtained by such repetition. But in all this work of plant-breeding, and more particularly with subjects which consume long periods of time, it is most important to record what ground has already been traversed, and so to avoid possible waste.

I might have added that Kerner and Oliver remark what I myself have noticed on a microscope slide, namely, that "when pollen is artificially cultivated in a prepared sugar solution, several tubes arise simultaneously from different spots, but in Nature, on the stigma, the production of a single tube is the rule." An unnatural phenomenon of this kind is deterrent rather than encouraging. "Novice's" discussion of the chemically

ever remember them to have been, and certainly give more real satisfaction and pleasure than any extra expenditure made in almost any other direction; besides which, to put off planting Roses until the end of the present year or the beginning of next year means virtually the loss of a whole year, for, after planting, Roses require about a couple of years before they, as a rule, become thoroughly established.

In the following lists I have arranged the Roses in them according to the purposes for which they are required—whether to be grown as dwarf plants, as standards, or as climbing Roses.

As Dwarf Roses.—White: Frau Karl Druschki (H.P.). Shades of pink or rose: Caroline Testout (H.T.), Cynthia Forde (H.T.), Lady Pirrie (H.T.), Mme. Abel Chatenay (H.T.), Mme. Edouard Herriot (Austrian Hybrid) and Mrs. C. E. Pearson (H.T.). Shades of crimson: Captain Hayward (H.P.), Ecarlate (H.T.), Edward Mawley (H.T.), General Macarthur (H.T.) and Hugh Dickson (H.P.). Shades of yellow: Duchess of Wellington (H.T.), Lady Greenall (H.T.), Mme. Mélanie Soupert (H.T.), very pale sunset yellow (in my opinion this is the most beautiful of all Roses), and Mme. Ravary (H.T.).

Standards.—White: Frau Karl Druschki (H.P.). Shades of pink or rose: Caroline Testout (H.T.), Gustav Grünerwald (H.T.), Mme. Abel Chatenay (H.T.), Prince de Bulgarie (H.T.) and Suzanne Marie Rodocanachi (H.P.). Shades of crimson: Captain Hayward (H.P.), Ecarlate (H.T.), Hugh Dickson (H.P.) and Marquise de Salisbury (H.T.). Shades of yellow: W. A. Richardson (N.).

Climbing Roses (Perpetual Flowering).—White: Climbing Aimée Vibert (N.) and Mme. Alfred Carrière (H.N.). Shades of pink or rose: Blush Rambler (Mult. Scan.), Conrad F. Meyer (Rugosa), Lady Waterlow (H.T.) and Zephyrine Drouhin (H.B.). Shades of crimson: Ards Rover (H.P.), Grüss an Teplitz (H.T.) and Longworth Rambler (H.T.). Shades of yellow: Bouquet d'Or (Dijon Tea), W. A. Richardson (N.) and Alister Stella Gray (N.).

Climbing Roses (Summer Flowering).—White: Bennett's Seedling (Ayr.), Félicité et Perpétue (Sempervirens) and White Dorothy (Wich.). Shades of pink: Dorothy Dennison (Wich.), Lady Gay (Wich.), Minnehaha (Wich.) and Tausendschön (Wich.). Shades of crimson: Crimson Rambler (Mult. Scan.), Diabolo (Wich.) and Excelsa (Wich.). Shades of yellow: Shower of Gold (Wich.).

ROSE FABVIER.

THIS delightful China Rose does well in the Rose garden of Sir John Stirling-Maxwell, Bart., at Pollok, near Glasgow. It was sent out by Laffay, and holds its own well as one of the best of its colour—a dazzling crimson. It is very well known, but this note may be a reminder to those who are going to order Roses that it is not easily surpassed in its colour and that it is a free and constant bloomer.

S. A.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Pot Vines.—As a general rule, six or eight bunches to each vine will be ample. Thinning of the berries should be begun as early as possible, and this is best done gradually, leaving the finest berries. Stop the strongest growths at the second leaf beyond the bunch, and those shoots that are weak and not required may be removed. The plants must be fed regularly with liquid manure and some good fertiliser. Close the house early, and maintain a night temperature of 65° to 70° with a rise during the day.

The Kitchen Garden.

Parsnips.—If the ground for this important crop has been prepared, it should be forked over lightly, and when dry enough the seed may be sown. The rows should be 18 inches apart. Some growers use a crowbar, making a hole

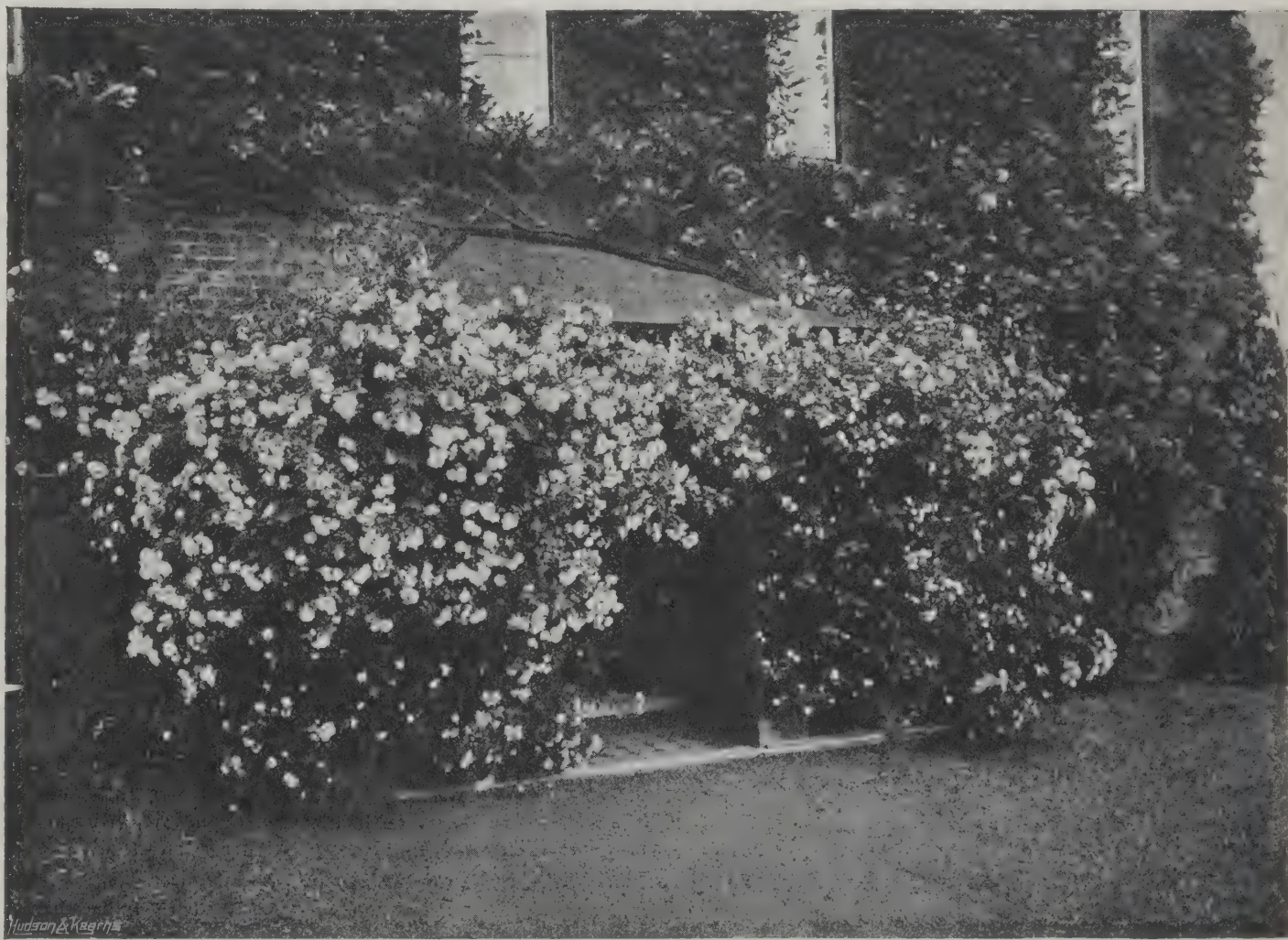
The Hardy Fruit Garden.

Nuts and Medlars.—These may be pruned where needed. Thinning will be necessary where the branches are crowded, and all suckers at the base of the former can be removed. Where Filberts are grown and a good crop is not secured, a few plants of the common Hazel may be planted to supply pollen, or a few branches with catkins may be from time to time arranged in the bushes.

Plants Under Glass.

Abutilons having been rested may be pruned and started into growth when the repotting is carried out. In large houses where they are planted out, a top-dressing of rich soil may be applied. These plants are increased by seeds and cuttings. Both can be dealt with now or directly young shoots are available.

Ferns.—The repotting of Ferns should be done before they have made much progress,



PERPETUAL-FLOWERING CLIMBING ROSES OVER A SUMMER HOUSE.

2 feet deep and filling it with soil, placing the best at the bottom. Four or five seeds are placed over the top of each hole, and covered lightly with fine soil. Hollow Crown and Student are both reliable kinds.

Radishes and Lettuces may be sown on a warm border, but the former must be protected from birds.

The Flower Garden.

Plants in Frames.—Rooted cuttings of Pentstemons, should be given more space by transplanting them into another frame or potting them into 3½-inch pots. Viola cuttings may have their tops removed; then they will be nice plants for putting out in the spring. The bedding Calceolarias can be planted out in frames, and the same remark applies to Gazanias. Cuttings of various shrubs, if well rooted, may also be planted in nursery beds. The lights on the unheated frames must be removed on all favourable occasions, the soil stirred between the plants, and all small weeds removed as they appear.

using as a rooting medium a mixture of loam, leaf-mould and sand. Some growers use peat, but this is not essential. Clean pots should be used, and have one-fourth of their depth filled with drainage material. Press the soil moderately firm, and after giving one good watering to settle the compost, very little water will be necessary until root action is vigorous. Keep the surroundings moist and the house rather warm and close.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)
Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Parsley.—A sufficient breadth of Parsley to last through the summer and autumn may now be sown. The seeds should be sown thinly in lines about 18 inches apart, and lightly covered and as soon as the seedlings are well above the ground they should be thinned out to 9 inches apart. The seed takes a considerable time to germinate and it may be necessary to run the

hoe between the lines even before the young plants are visible, to keep down free-growing weeds.

Turnips.—A small sowing of Early Milan Turnip may be made on an early warm border, but it is not advisable to sow large breadths thus early, as with sharp frosts every plant may run to seed.

Lettuces.—A few lines of Cabbage Lettuce might also be sown on an outside border, to follow plants raised on a hotbed.

Early Potatoes.—In sheltered gardens free from late spring frosts, a few early Potatoes can be planted, and if they can be given a narrow border at the foot of a wall, so much the better, as shelter can then be easily provided if necessary. I find Sharpe's Victor the most suitable variety for earliest use, either in frames or out of doors.

Asparagus.—The beds of this useful spring vegetable should receive some attention in the way of clearing off any weeds that are present and giving a top-dressing of well-decayed manure. In gardens near the coast a top-dressing of seaweed is usually given, but this is best applied at the beginning of winter.

The Flower Garden.

Seed Sowing.—Several additional varieties of half-hardy annuals may now be sown, such as Petunias, Alonsoas, Scabious, Salpiglossis, Larkspur and Kochia. East Lothian Stocks may also be sown from now till the end of the month, for flowering from July onwards. Some extra care is necessary with Stocks in their early stages, as they are very liable to damp off at the neck. I prefer to cover the seeds lightly with pure sand, pricking out the seedlings as soon as they are large enough to handle, and transplanting them a second time into more roomy boxes or a cold frame. This enables one to lift the plants with good balls of roots when they are to be placed in their flowering quarters.

Shrubs.—Any pruning of shrubs that is necessary should be undertaken now, using a strong pruning-knife or secateurs. Avoid clipping with shears as much as possible. Many of the smaller-growing ornamental conifers require annual trimming to keep them shapely. Attention should also be given to those showing more than one leader. This applies to all conifers, as duplicate leaders, if allowed to grow, eventually spoil the symmetry of the trees.

The Rock Garden.—This department will now be ready for some general attention. Several of the earlier subjects will be showing flower; rank-growing subjects should be trimmed back, to avoid smothering more delicate growers; others will require the surface pricked over and weeds removed, and to be given a top-dressing of fresh soil to suit their individual requirements, or it may be a few pieces of freestone chips pressed into the surface where the frosts have loosened the roots. Fresh plantations can now also be made from the reserve stock. Some fresh plantations require to be made annually, and it is well to have a young stock, either from seeds, cuttings or divisions, always at hand in a cold frame for this purpose.

Plants Under Glass.

Chrysanthemums.—Cuttings of these that were put in some time ago, if rooted in boxes, will now be ready for potting off. They should not be given much heat, but be kept close for a time until they have taken to the shift, after which they must be freely ventilated. Cuttings for bush plants may still be put in; also of varieties suitable for flowering in 6-inch pots, a system most successfully practised by some of our Northern growers.

Malmaison Carnations.—Plants that have wintered in 3-inch and 4-inch pots should now be ready to pot up into 6-inch and 7-inch pots. A fairly heavy loam should form the bulk of the potting mixture in the flowering pots. For some years now I have discontinued potting up the layers in small pots and potting them on in spring. When the layers are well rooted in autumn I pot up three together in 6-inch or 7-inch pots, according to size, and find I get as good flowers as previously, with this difference—I have three flowers to a pot instead of one. A few of the old plants are kept over for a second year. These are not potted on, but given some stimulant and placed in heat to provide early flowers. THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

ANSWERS TO CORRESPONDENTS.

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

TOWN GARDENING (Septuagenarian).—There is much good gardening done within the limits of the districts to which you refer, though the measure of success attained is frequently also the measure of cultivation which the soil receives. Naturally, too, the precise aspect of any particular garden, together with environment, plays a by no means unimportant part, a much-shaded garden, or one closely hemmed in by high buildings, being, generally speaking, not good for flowering plants. Thorough soil cultivation will do much to help in such cases, and much more where backed by enthusiasm. Had you stated more definitely how the garden is situated, as to the openness of the position and the average hours of sunshine it gets, we could have assisted you more. Of the plants named, Scabious is the least likely to succeed; all the others are of vigorous nature and free. Antirrhinums and Pentstemons usually do quite well, and Violas are often a complete success. The Berberis is almost sure to succeed, also the Ceanothus against a moderately sunny wall. From the rock plants the Dianthus might be deleted, and Mossy Saxifrages, Armerias, Phlox subulata and Campanulas added. Flag Irises would be worth growing. An essential in the case is thorough soil preparation. Perhaps you would like to write us again giving fuller particulars.

COLLECTING SEEDS (New Zealand).—The usual practice is to gather the heads of such things as Gaillardia, Aster, Bellis and others of the Composite Order just in advance of ripening, detaching a piece of stem with each head so that full maturity may be ensured when they are later laid out to dry. Sunflower seed should be gathered early or protected from birds. In the first named, as maturity is reached, the seeds are easily scattered by the wind, hence the need for early gathering. Anemones of the blanda set must be harvested quite early, the swelling grains on the cone-shaped disks forcing each other off while yet green. Other Anemones with awn-like appendages should also be collected early. Ripeness in the case of seeds contained in capsules—Carnation, Anthericum, Lily, Iris, Delphinium, Alstroemeria, Christmas and Lenten Roses, Muscari, Daffodil, Tulip, Mignonette, Violet and others—is indicated by the bursting of the capsules or seed vessels, and to avoid loss should be watched for the earliest signs of bursting, or be gathered with the yellowing of the pods just in advance of it. Muscari and Daffodil pods often burst suddenly, and, opening widely later, some seeds are ejected and lost. Where the capsules are quite erect, as in the Delphinium, the loss is not likely to be great; still, it would be unwise to risk a crop. Adonis should be closely watched; it is on all fours with Anemone blanda. Seeds contained in fleshy receptacles—Rose, Cotoneaster, Crataegus and the like—may long remain on the plants if not interfered with by birds. Clematis, too, is usually of a more or less persistent nature. Your best plan would be to watch the plants, note the formation of the seed vessels, the way they expand and throw off the seeds naturally, and collect slightly in advance of full maturity. Not only families of plants, but species of the same genus differ so widely in these matters that the laying down of any hard and fast line of procedure is well-nigh impossible. All seeds should be laid out on paper in a dry place secure from birds for a short time prior to cleaning and sowing or storing away. A sunny greenhouse is a capital place. All seeds should be carefully named.

TREES AND SHRUBS.

EVERGREEN SHRUB WITH SCARLET BERRIES (Preston).—The evergreen shrub with scarlet berries which you have in mind is evidently Pyracantha coccinea var. Lalandii, usually known by the simple name of Pyracantha. It will probably grow quite well in the position described, but may not flower and fruit so freely there as it would in a position where it would get more sun.

CUPRESSUS MACROCARPA UNDER TREES (Macrocarpa).—Cupressus macrocarpa might be planted in moderately open places in woods, but it would not be advisable to plant it in shady places. Openings in covert ought to answer very well. Small plantations ought to be protected from rabbits, at any rate for a few years.

PRUNING A MAGNOLIA (L. J.).—You cannot do better than prune your Magnolia—which from your letter we presume is the evergreen M. grandiflora—during late March or early April. Some of the flowers of the following summer will be sacrificed thereby, but the plant will have a full growing season to repair the injury caused by the pruning. Be careful to make clean cuts, and protect the wounds as soon as made by the application of a dressing of ordinary coal-tar. Pruning could be carried out during summer, but the plant would not have an opportunity to mature its young shoots, and a severe winter would probably result in a certain amount of injury.

ROSE GARDEN.

ROSE WILLIAM ALLEN RICHARDSON NOT FLOWERING (E. H. J.).—The structure may be too close and shaded for the wood to ripen properly, while the roots may have got into a drain or some other unsuitable place. As it makes strong growth, we think that if you were to prune it lightly, at the same time cutting out any old and exhausted wood, it will very likely prove satisfactory during the coming season.

PRUNING OF NEWLY PLANTED SPECIES (Maida Vale).—Provence, Bourbon, Scotch Briar, Rugosa, China and Moss.—These may with advantage be pruned hard the first spring after planting. Austrian Briar.—This flowers on the laterals of last year's growth, so one, two and three year old shoots must be left and only dead and old wood cut out. Wichuraiana.—The type may be left unpruned, only tips shortened, but as the hybrids approach the characteristics of their second parent they must be pruned accordingly; the nearer the Tea or Hybrid Tea the harder the pruning. One or two shoots may be retained full length if desired, others cut back hard. As a general rule, moderate thinning out immediately after flowering is the best practice. Rubrifolia does not require any pruning. Thin out dead wood. Pomifera blooms on laterals. Three year old wood only requires taking out.

SELINA ROSE STOCK (W. B.).—This was a stock largely used by English and French growers many years ago, but, save for a few Dutch and probably French rosarians, it is not now employed, possibly because the De la Grifferaie, Rugosa and Laxa stocks have taken its place. We believe it possessed no special merit beyond its readiness to strike from cuttings. Selina belongs to the Damask Roses. There are many old sorts and also species that could be used for stocks, but Rosa canina in its forms as seedling or cutting answer as well as any other. Were it not for its great tenderness, Rosa indica major would be a splendid stock for many of the delicate Tea Roses. We have seen plants of Georges Schwartz, one of the most difficult Roses to grow, but one of the loveliest yellows, growing finely on the indica stock. This question of stocks is a most interesting one, and one that deserves more consideration from rosarians. Perhaps some of our readers could give us their experience of stocks other than the Briar, Manetti, Laxa, De la Grifferaie and Rugosa. Some people have believed that mildew would largely become obsolete if the Roses badly addicted to it were budded upon a mildew-proof stock. If the National Rose Society possessed an experimental garden, of what great use they could make of it for experimenting with stocks!

MISCELLANEOUS.

DISEASE ON THE LEAVES OF CHRISTMAS ROSES (E. C. C.).—The Christmas Roses are attacked by a fungus, Coniothyrium Hellebori, which often damages the leaves of these plants. Spraying them with liver of sulphur may check the spread of the trouble, and the removal of affected foliage should be done thoroughly, and it should be burned.

CHRISTMAS ROSES (Jane Tupe).—Cutting off the leaves of these plants would most certainly be injurious, and would weaken the plants considerably. If the leaves are in the way of the flowers you will find that a little downward and outward pressure will do all that is required. The leaves of some varieties naturally incline outwardly, but in others they tuft toward the centre. This is most usual in the major variety, which is probably the sort you have.

WEEDS IN ROCK AND WATER GARDEN (Dorset).—You appear to be in a great strait, having started before you were ready, more particularly in regard to the rock portion, since the other part, save the banks and sides, would not matter. The difficulty of clearing out the weed pests referred to may be even greater than at first sight appears, if, as we imagine from your letter, the weeds belong to the natural soil. If this is so, clearing out the roots will not rid the ground of seeds; hence the trouble may be continuous. Far better in the first instance to have burnt the top soil, but that opportunity now appears lost. Treating it with weed killer might rid the soil of some of the roots, but not all, and quite small bits of both kinds grow freely. Roots of Couch Grass do not usually descend deeply. Nettle roots, however, are the reverse; hence the difficulty of effectually reaching them with any liquid application. As you cannot get labour to overhaul the ground and fork out the weed, we should be inclined to try the weed killer, one application now, and another when the weeds have made some growth. It would be necessary to leave the ground vacant for some months, as probably in early autumn a second growth might appear. Eureka Weed Killer is good, and if used at double strength would be more effectual.

THE GARDEN.

No. 2311.—Vol. LXXX.

MARCH 4, 1916.

NOTES OF THE WEEK

To Our Readers.—Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.

Snow and its Equivalent in Rainfall.—The recent fall of snow has been very heavy in some places, but it is of interest to note that it takes anything from 10 inches to 2 feet of snow to equal a rainfall of an inch. In its normal state snow consists of nine parts of air to one part of water, so that it would take a 10-inch fall of snow to equal an inch rainfall. But snow may be so light and feathery that it contains as much as twenty-three parts of air to one part of water, when 2 feet of snow would only be the equivalent of an inch of water.

Camellia japonica magnoliæflora.—Less than a century ago a pure white double Camellia was looked upon as an exquisite floral treasure. But Camellias are not as popular as they were, and the set appearance, especially of the double flower, which looks as though it might have been cut out of a Turnip, does not find many admirers nowadays. It came as a relief to see two Camellias, *C. reticulata* and the much smaller *C. japonica magnoliæflora*, both of rare and refined beauty and of artistic shape and colour, shown by Messrs. Robert Veitch of Exeter at the last two meetings of the Royal Horticultural Society. *C. j. magnoliæflora*, with its delicate pink and beautifully formed flowers, is particularly well named. With age the flowers become almost white. It is now flowering at Kew, both in the Temperate House and in No. 4 Greenhouse.

A New Horticultural Institute.—We hear that a new agricultural and horticultural institution has been started at Usk in Monmouthshire, under the principalship of Mr. J. C. Newsham, F.L.S., who for many years successfully conducted the work of the Agricultural and Horticultural Institute in Hampshire. In connection with the institution there are some six acres of experimental gardens, which are largely conducted on commercial lines for the training of students of from fourteen to seventeen years of age who contemplate taking up market garden and nursery work.

Lonicera fragrantissima.—The fragrant flowers of this Honeysuckle are very acceptable

during the winter. During a mild winter the old leaves remain on the tree until the new ones appear. The flowers are pure white, borne freely, usually in pairs, from the leaf-axils. It somewhat resembles *L. Standishii*, another Chinese species, and is often confused with it, both blooming at the same time. The latter, however, is deciduous, and bears cream-coloured flowers with bristles on the young flower-stalks and the outside of the

with a single. Two double forms are known, one in which several petals are produced within one another, the other in which two rows occur, the inner being reversed in colouring. Mr. Allard had searched over a number of plants of *P. sinensis alba plena*, in which the flowers are of the former type, shown by Messrs. Veitch, and had found one flower with a normal stigma, none with pollen. He pollinated this flower with pollen from a single

magenta-flowered plant, and obtained three seeds, which gave two plants bearing normal single flowers, tinged white. These were self pollinated and gave seventy-four plants, seventy-two of which were single, two double, both white, and with the older form of doubling similar to the double parent.

A Long-Keeping Onion.—At the meeting of the fruit and vegetable committee of the Royal Horticultural Society on February 22, a remarkably long-keeping Onion was shown by Mr. E. Beckett of Aldenham House Gardens. It had been sown in August, 1914, at the usual time for sowing winter Onions. The remarkable part about it was its perfectly sound condition at the date named. No spring-sown Onion could possibly have been in a sounder condition. The question was asked if any special treatment had been adopted in storing the Onion. The reply was, "None whatever." If those qualities are fixed, the variety will become valuable, as it will practically do away with the necessity of growing summer crops of Onions, and thus liberate valuable ground for other summer crops.

Virtue in Wild Herbs.—From a conversation we recently had with "one who knows" about the present movement for planting and cultivating medicinal herbs, in view of the threatened shortage, we gathered that cultivation in some cases lessened their virtues and, as a corollary, their utility and value to the drug manufacturer. In English gardens three or four hundred years back such plants occupied a most important place. But even then the superiority of wild

collected ones was fully recognised, as this quotation from "The Profitable Art of Gardening" (1579) proves: "And here also learn that the wilde hearbes are stronger in vertue than be the garden herbes, although the wilde be the lesser in bignesse, according to Plinie." Note the spelling, so typical of old books, and the reference to antiquity, so characteristic of old writers



CAMELLIA JAPONICA MAGNOLIÆFLORA, NOW FLOWERING AT KEW.

corolla. A few small plants grown in pots are very valuable, for they will fill a large conservatory with their delicious fragrance. They root readily from cuttings of half-ripened wood in summer.

Double Primula sinensis.—At a recent meeting of the scientific committee of the Royal Horticultural Society, Mr. Allard showed the result of crossing a double form of *Primula sinensis*

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Border Carnations.—I notice in your valuable paper a letter from "Ayrshire," page 62, issue February 5. If I understand him correctly, he, like his neighbours, grows his Carnations in pots under glass. My poor hardy border Carnations would be of no use to a man who can grow by this means such delicate varieties as Cecilia and the like. If, however, I have misunderstood him and he will furnish me with his name and address through you, I shall be happy to send him a few layers to try. Mine are grown in the open border, in a damper county than Ayrshire, and I cannot do with any that require shading.—LANCASTRIAN.

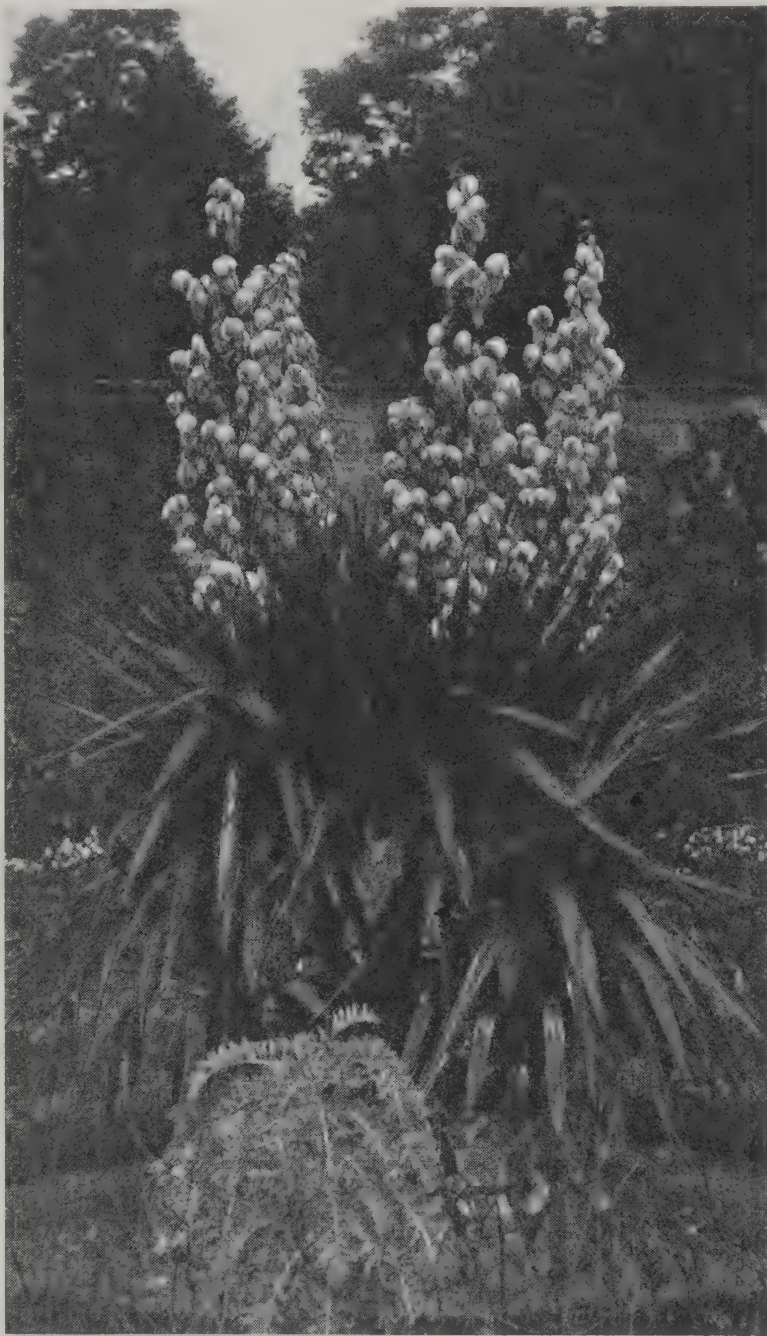
The Phenomenal Berry.—In my correspondence and study of catalogues I have found that there is evidently a widely differing experience of the Phenomenal Berry, in which some people have evidently got hold of the Newberry instead of it. Mr. Backhouse of Boscombe tells me it is sweet. George Pyne in his list says he finds the two identical. Laxtons describe in their list the Phenomenal Berry as darker and sweeter, and the Newberry as "similar to the Phenomenal Berry." Merryweathers say the Phenomenal Berry has the flavour of a Raspberry.—W. F. M. COPELAND. [Would the raisers of the Phenomenal Berry kindly give a detailed description of it?—ED.]

Yucca recurvifolia.—I am sending a photograph of *Yucca recurvifolia*, which was planted in its present situation about twenty years ago. It is on a stone-covered mound, raised about 18 inches above the ground level, and is 4 feet across. It is in the centre of some geometrical flower-beds in a rather low and exposed situation, and has had no protection of any kind for many years, although it has been exposed to some very severe frosts, as much as 26° to 28°. It is planted in ordinary good garden soil mixed with a little lime rubbish, and the only manure has been an occasional sprinkling of artificial manure, with a few doses of liquid manure during the growing season. It is about eight or nine years since it first flowered, when it threw up a very fine spike about 10 feet high. Soon after flowering the top died and the main stem branched out into five heads, four of which flowered last summer and were about 9 feet high. The main stem is now about 2 feet high and 17 inches in circumference. In addition to the main branches there are three suckers, which are nearly as large as the branches that flowered.—W. W., *Ulverston*.

White Roses.—The whitest of the Ramblers which I have seen are Rambling Rector and Sander's White, both of which are represented in South-West Scotland gardens, and are far superior to White Dorothy, which it is almost a travesty of the word to call "white." Among the Moss Roses, I should like to add to the two mentioned by "White Lady" that called White Bath, an old Rose of Salter's, sent out in 1810, I believe. The old *Rosa alba*, as represented in Scottish gardens by the double one generally

called Prince Charlie's Rose, is a good white.—SCOTCH ROSE.

Mealy Bug on Cacti and Other Plants.—As a grower of Cacti this pest is only too well known to myself. I have tried many remedies, but the one I find most effective and at the same time least harmful is a solution of paraffin in methylated spirit. The quantities are about a teaspoonful of paraffin to half a pint of methylated spirit. If any globules of undissolved paraffin are seen floating on the top, then sufficient methylated spirit should be carefully added to dissolve them. This solution effectively disposes of the mealy bug and, more important still, kills any



A TWENTY YEAR OLD MOUND LILY OR ADAM'S NEEDLE (*YUCCA RECURVIFOLIA*).

eggs or young that may be contained in their waxy covering. The only drawback I find is a tendency to harden the young growth in the hearts of the Cactus plants, and thus prevent the due development of the spines we so greatly desire; so, while using it freely on the sides and roots, I deal with intruders in the hearts by means of hot water and a syringe. On plants outside it is harmless. I have tried it on the youngest growths of Rose shoots with no harmful results, and it appears to be a very safe remedy to use on Vines and other subjects, such, for instance, as the big-bud pest on Currants.—C. DENNIS O'DONOGHUE.

Azara microphylla.—The recent notes on *Azara microphylla* are interesting, but in many situations it is a mistake to grow the Azara as a wall shrub, and equally a mistake to suppose it thrives best on a wall. It is a small tree, with a rather loose, irregular habit, though upright, and with its plume-like branches drooping at the points is very graceful and striking. A sheltered situation on deep, moist, well-drained loam is ideal. Its very dark foliage makes it a striking contrast with many other subjects; indeed, the Azara in many respects is unique. There is before me as I write a specimen 15 feet high, planted about as many years ago. The foliage suffers a little in very hard winters, but speedily recovers, and no pruning is required unless a dwarf tree is desired.—HURSTCOT.

Flavour in Apples.—I am reluctant to ask the Editor to give to dialectics space which might more profitably be devoted to horticulture, but "E. M.'s" curious misunderstanding of my few remarks on Apple flavours cannot pass without comment. By attributing to me statements which I did not make and drawing conclusions which I do not share, he (or she) claims to have demolished my case. I did not elevate Orleans Reinette to the "highest pinnacle," but gave it my personal preference—a very different matter. The whole gist of my argument was that there is no one "highest pinnacle," but many—each supreme in its own way. I do not at all agree that Cox's Orange is as good as usual after the wet and sunless summer; quite the contrary.—EDWARD A. BUNYARD.

Flowering Trees and Shrubs in South Devon.—Among all the evidences of this remarkably early season I have seen nothing so striking as a Horse Chestnut tree in full leaf in Teignmouth. This is, of course, a very mild district, but I should think such early leafing is unusual even for South Devon. Not far from this tree there is a magnificent *Acacia dealbata* (Mimosa) now in full flower (February 21). It is sheltered from the west by a house, but is otherwise quite exposed. It is about 40 feet high and covered with blossom. In a tiny village in the same district there is a very beautiful specimen of *Genista monosperma*, also in full flower and most deliciously scented. The ordinary yellow *Genistas* are everywhere a mass of flower, some of them being very large shrubs. A number of trees of *Eucalyptus globulus* in Paignton are covered with hundreds of their curious little stud-like flower-buds, so well illustrated in *THE GARDEN* a few weeks since, but I have seen none in full flower yet. One plant

of *Clianthus puniceus* (the scarlet Glory Pea), in a sheltered spot, has several flowers already open and many buds on it. Suckers of Elm trees and young Hawthorns are already becoming quite green, and I have seen a Pear tree in bloom. Almonds are fully out, *Prunus pissardii* nearly over. *Cydonia japonica* is now at the height of its beauty on many cottages.—N. G. HADDEN, *Teignmouth, South Devon*.

Exhibition Vegetables v. Utility.—I am aware that it is a tall order to differ from Mr. Beckett at any time where vegetables are concerned, but my conscience will not allow me to agree with some of the conclusions he arrives at

on page 71 of THE GARDEN for February 5. For instance, we will take a popular and everyday vegetable like the Potato; it is rather weak of him to write: "Who would deny that a large Potato is infinitely superior to a small one for baking purposes?" We all agree with the last three words. The question is, Is it of greater general utility? I maintain not. For my own table, for ordinary everyday use, I like a shapely tuber of about the size of a tennis ball, or perhaps a shade larger, steamed in its jacket, with the latter removed before it comes to table or not; it is not necessary to do so. As to large Onions, most gardeners are very keen on producing exhibition specimens—it seems a mania with them; but I cannot help noticing after the winter is over that we have wasted a great many of them. A very useful size in Onions is the little bulb that is usually served with calf's head, and in many stews and allied dishes. In fact, we are more and more acquiring the habit here year by year

on earth wants one on his plate that is a foot long or more; who wants enormous Broccoli? Heads of Broccoli which I am now cutting, about the size of a Seville Orange, are quite good enough for me. Wherein lies the utility of a Tomato weighing, perhaps, three-quarters of a pound? Who will have the temerity to compare the quality of the old Drumhead Lettuce with a dainty little luxury such as Golden Ball? There is a village in this neighbourhood which prides itself on the production of large Radishes, and, indeed, I believe holds and maintains the record for size. The worst punishment I wish the inhabitants is that they may have to eat them. When Broad Beans first come in they are most delectable, but most of us cease to eat them when they become large. To finish with perhaps one of the most striking examples of all, let me take the Vegetable Marrow. Any man of discrimination who has once tasted a small, whole one of a good variety will never again want to devour a slice chopped

of this handsome winter-flowering shrub. This, in one instance at least, necessitated the creation of a new varietal name, the alteration being made after much consideration and a somewhat generous contribution of living examples in comparison with original herbarium specimens from Kew. In these circumstances it is to be hoped that cultivators—amateur and trader alike—will co-operate with the foregoing society in order to make the way more clear for the future. In the past, seedlings were raised freely, and in all probability the distribution of some of the more distinct of these under recognised names has been responsible for not a little confusion; and while all may be worthy garden plants, it would be by no means an easy matter to bring them all into line other than to refer them to one typical head. With a view to assist readers, however, two illustrations are given on this page representing *Berberis japonica* (type) and its variety *B. j. hyemalis*. The typical kind (see illustration)



BERBERIS JAPONICA (TRUE).



BERBERIS JAPONICA HYEMALIS.

of sowing outdoors a good all-round variety like Ailsa Craig, and leaving it unthinned in the row, to be pulled when ripe and expressly used for such useful purposes as I have named, and for which monster bulbs, which would have to be chopped up, would be of less value and appropriateness. After giving points for size to Potatoes, Onions, Asparagus and Peas, Mr. Beckett finally declares that "the same holds good for the vast majority of vegetables." That, at any rate, is not my opinion. There used to be a little variety of Brussels Sprouts which does not seem to be sold nowadays, and I have, indeed, forgotten the name; but perhaps Mr. Beckett would be able, were he willing, to refresh my memory. The Sprouts were very little larger than one's thumbnail, but the flavour far surpassed any of the modern types of "exhibition" Sprouts. I could write in a similar strain of many another good thing. What is nicer than the little early Carrot that melts in the mouth; who

out of a big one. This much I will concede: large vegetables have a certain merit, and it is well summed up in a remark made by an old gardener of mine when showing some huge Chrysanthemums some years ago. An onlooker rather doubted the superiority of the huge blooms over those that were shown in a decorative class. I well remember my man's reply: "Look at the time and trouble it's taken to grow mine, Sir." The value of the production of large Leeks, Onions and the like lies in the stimulus given to patience and industry, and there it ends.—F. HERBERT CHAPMAN, Rye.

Berberis japonica and its Varieties.—Recent events have proved that considerable confusion has existed for some time past with respect to the more important forms of this species. The foundation of a firmer basis for the future has, however, been laid by the granting recently of awards of merit by the Royal Horticultural Society to two of the more distinct varieties

is characterised by terminal sub-erect racemes of pale yellow flowers having little or no perfume, and 15 inch long pinnate, spiny-margined leaves, the pairs of leaflets widely separated. It forms an imposing unbranched shrub, and in stiff soil, which suits it admirably, will attain to 6 feet high. *B. j. hyemalis* is the plant formerly known as *B. j. Bealei*. Established, its leaf effect is more handsome and imposing than the last, the flower racemes, as will be seen by a reference to the illustration, longer, more numerous, and with a decided horizontal inclination. The larger, deeper-toned yellow flowers have a delightful fragrance. As a winter-flowering shrub it is invaluable. *B. j. Bealei* (true), in its sub-erect flower racemes, approximates to the typical kind somewhat, differing from it in its handsomer leafage and broader, more closely set—almost imbricated—leaflets. All are worthy of a place in isolated groups or in the shrubbery.—E. H. JENKINS.

MUNICIPAL ROSE GARDENS

THE subject of municipal Rose gardens, which has had, for some years past, a very warm corner in the hearts of many rosarians, is now emerging from the proposal stage into the region of accomplished fact. The history of the movement in its present form is comparatively recent, and it was only last year that an outline of the scheme appeared in the Rose Annual, in the shape of articles by Mr. Walter Easlea (a frequent contributor to THE GARDEN) and Mr. H. L. Wettern, the well-known amateur exhibitor. In one of these articles mention is made of the public Rose garden at Westcliff-on-Sea, and of the great success which has attended this interesting experiment in municipal Rose gardening; further extension of the movement is eloquently pleaded; and in Mr. Wettern's article a comprehensive scheme is sketched out, in which co-operation between municipal councils, honorary expert advisers, and professional Rose-growers is the main feature. Various tentative proposals were made during last year, and one of our most progressive local societies, the Croydon Horticultural Society, in conjunction with the local Council, actually planned and planted a Rose garden at Park Hill—the first of its kind in Greater London, and a distinct feather in the cap of this locality, which, with the adjoining suburb of Purley, is a perfect hotbed of Rose enthusiasts. It was, however, felt from the first that the scheme in its wider scope should not be left to the initiative of local societies, and required the authority and energies of some central organisation, which was eventually found in that young and vigorous body the City of London Rose Society, whose committee, after thorough discussion, accepted the task and speedily got to work, with results which may fairly be considered surprising, having regard to the fact that the autumn was well advanced before a start was made. Several municipal Rose gardens are not only "in the air," but planned and planted, and we understand that next season will see a considerable expansion of the movement in many directions.

In a recent interview some interesting details were given by a member of the committee as to the scheme generally and the society's plans, present and future. "It is a truly democratic movement," he said; "Rose-growing 'by the people for the people' might be given as a brief definition—and we hope to make it one of our chief activities. By means of municipal Rose gardens we shall endeavour to appeal to, and educate a far wider circle than can ever be reached by the annual Rose show."

"And what progress can you report so far?"

"Well, the time has been rather short, and with a somewhat late start and a lot of work, the end of the planting season comes tragically soon! However, in all the circumstances I think we may be fairly satisfied, although more could have been done had we had the time. Rose gardens are now established at two of the London County Council's gardens—Avery Hill, Eltham (a beautiful situation), and Horniman Gardens, Forest Hill. Then at Carshalton a small garden, which we hope will be considerably extended in the future, has been formed in the Recreation

Park, and at Wimbledon we have planned and are now planting a Rose garden in one of the "lungs" which a wise Borough Council has provided in a most central position—South Park Gardens. Here, also, there is great scope for further efforts in the future. At Croydon, too, we are working in conjunction with the Croydon Horticultural Society, which has completed the first portion of a new Rose garden at Park Hill."

"Have you found any special difficulty in initiating such an enterprise in these abnormal times?"

"I am glad that question has been asked, because it is a point that has been raised in one or two quarters. In the first place, we have not, of course, *chosen* the time, and the decision to make a beginning was only arrived at after careful consideration of all the pros and cons. What mainly influenced us against the idea of postponement was the fact that under our scheme practically no extra expense is incurred, all services are given voluntarily, and the Roses are presented by the large Rose-growing firms in return for the unique advertisement which they receive, and with the large stocks on hand at present we have had no difficulty in getting the plants. Probably you are aware that, in many instances, economy and staff depletion between them have necessitated the abandonment of many beds in public parks and gardens, which are being turfed over, and the annual outlay on expensive and fugitive bedding plants, &c., saved. If some of these beds can be rescued, it provides an opportunity for permanent planting with the loveliest of all subjects; and in the cases where existing beds have been used, an actual economy will have been effected. But beyond these material factors there is the question of the mental and spiritual influences brought to bear upon the harassed mind and heart through the ministry of flowers—surely now, if ever, such healing ministries will be needed, both by the men 'broken in our wars' and the civilian bearing the burden at home, and if only a very little can be added to the sum of them, it will be worth doing."

"That seems to be true, and very easily overlooked. And what plans have you for the future?"

"Many plans, but the future is necessarily very much 'in the lap of the gods,' especially the war gods. However, gardens in several centres are definitely in view for commencement next season, and these we shall hope to indicate and describe to the readers of THE GARDEN in due course. Broadly speaking, we are out to beautify any spot, preferably in the more populous centres, where sufficient land can be allocated by the municipality and where soil and surroundings make Rose-growing possible. On the educational side we propose to issue a pamphlet at each Rose garden describing the various methods of growth and training exemplified, with hints upon suitable varieties, treatment, and advice as to soil conditions, &c., in the various localities. We shall also institute a system by which budding enthusiasts (and in July we mean to 'bud' enthusiasts as well as Briars!) may be able to get in touch with our members, and receive all the help we can give them in their doubts and difficulties."

"And on the whole you are satisfied with the reception of the scheme so far?"

"Quite satisfied; and I should like to add how much we are indebted to those who are co-operating with us, for the interest they have evinced and the cordial way in which they have assisted us. The officials of the London County Council Parks Department have entered into the scheme most heartily, and the borough councils, too, have met us in the most helpful way, and have invariably fallen in with any suggestions we have made—although they are, perfectly properly, keeping a lynx-like eye upon expense, and we have all had to be careful to keep as nearly as possible to the central idea that in these times no extra expense shall be incurred. Then, the professional Rose-growers have rallied splendidly to the scheme; and although we are confident that they will reap their reward in increased orders in the future, it is none the less gratifying to find the well-known firms willing to back our efforts in such a practical manner. In one garden the whole of the plants—approaching two thousand—are the gift of one famous nursery."

"You will see that the central idea of the whole movement is co-operation—the municipality giving the land, the nurseryman the plants, and the society the time and energies of its members—and we believe it is a sound and lasting basis upon which to build. We recognise the difficult times, but the clouds are going to break some day, and then as time goes on we hope to have the land smiling with Rose gardens. Meanwhile, come and see some of these first efforts—I won't say this summer, which would be hardly a fair test, but in 1917!"

[It is our intention to publish monthly articles on the Municipal Rose Gardens movement. In the next few months descriptive articles, with plans, dealing with the gardens at Avery Hill, Forest Hill, Wimbledon, and others, will be published.—ED.]

ROSE. SARAH BERNHARDT

To show how some of our best Roses are not even known by some trade growers, when the above splendid variety was exhibited last autumn at the Royal Horticultural Society's meeting a trade writer in a contemporary said he did not remember ever having seen it shown before. I have grown it since it was sent out by Dubrieul in 1907, and consider it a real acquisition. The style of flower is not unlike a Noella Nabonnand, only that during very cool weather the form of the half-open bloom is perfect, tapering like a cone. Its colour is gorgeous in the extreme, a real rich scarlet-crimson, and last year, with me, it had quite a blackish shading that greatly enhanced its beauty. Expanded flowers are 4 inches to 5 inches across. It should be grown as a free bush, and at pruning-time leave the growths 2 feet to 3 feet in length; then they will yield four or five new growths each. The flowers are produced in threes and fours. It makes a grand free-headed standard. Roses of this semi-climbing type should be grown in the manner I have described, and they are grand in the background of a border, or would make a fine bold bed. Roses such as Hugh Dickson and Mrs. Stewart Clark are all amenable to such treatment, and, given space, are very lovely objects. P.

FLOWERS IN THE HIGH ALPS

THE illustration on this page depicts a scene which is doubtless familiar to many readers who in years past have seen the beauties and glories of the flower world in alpine valleys and mountain passes of Switzerland. It is a spring or early summer scene in the region of Montreux and the Lower Rhone Valley—a part of Switzerland well known to many English people. As soon as the slopes are free from snow, there is a sudden outburst of colour from myriads of Crocuses sprinkled far and wide over

ARE DAFFODILS WIND FERTILISED?

BY THE REV. G. H. ENGLEHEART, V.M.H.

I AM not concerned to answer piecemeal all that "Novice" writes under another heading, of which THE GARDEN readers have perhaps had enough. A full answer would necessitate too much direct contradiction to be courteous, and seems superfluous, since "Novice" asserts that he has already

which is excellently representative of his general reasoning: "As to Daffodils being seldom wind pollinated, the agency of the wind in dispersing pollen in a wide range of plants is so well known that comment on Mr. Engleheart's statement of opinion is unnecessary; and, besides, the *negative* conclusion stated cannot, *ex necessitate rei*, be susceptible of *affirmative* proof."

Now let us examine what *thought* and what *fact* this paragraph contains. Mr. Engleheart's statement of opinion was, not that there is not a wide range of wind-pollinated plants, but that the Narcissus happens not to be included in that



CROCUSES IN THE ALPS AROUND MONTREUX.

open grasslands and lying clustered in dense patches, while the fields around are growing blue with innumerable Scillas (*Scilla bifolia*) and patches of Grape Hyacinth, and sunny slopes are becoming thickly studded with great tufts of Primroses and other Primulas, and glowing with early Violets. The Vernal Snowflake forces its way from beneath the snow, raising aloft its handsome, drooping bell of white. It is soon followed by purple and yellow Saxifrages fragrant Daphnes and Anemones. On many a rocky slope along the banks of the Rhone one may find Anemone Pulsatilla in great quantity.

"converted" me (I do not know from what to what), and that his own conclusions are "incontrovertible"—surely a strange attitude for a novice. But controversies unfruitful in themselves are apt to throw up fruitful by-products, such as this question of wind fertilisation, which may well be further discussed for the benefit of the many genuine novices in the Daffodil field who are willing to learn.

"Novice," despite his name, is good enough to prescribe for me a course of "greater attention to structural botany and its teachings," and then launches against me the following paragraph,

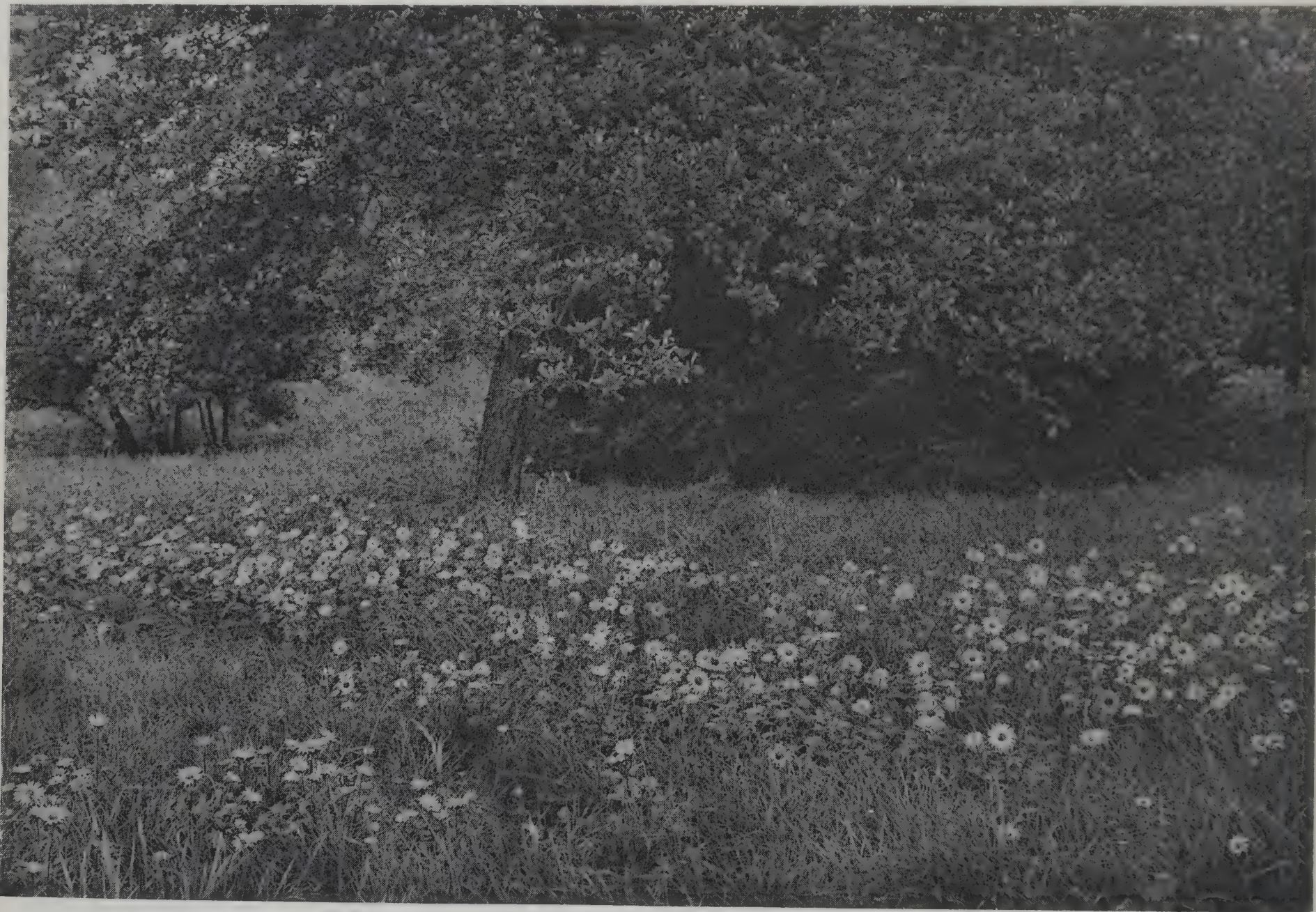
range. If Mr. Engleheart had hazarded the opinion that cows are not carnivorous, "Novice" might have answered with precisely the same exquisite logic, "It is so well known that a wide range of animals eat flesh that comment on Mr. Engleheart's statement of opinion is unnecessary." As to "Novice's" last sentence that "the negative conclusion stated cannot, &c.," I have not the least notion of its meaning. In the abstract region of disembodied logic it is said to be difficult to prove a negative; in the region of common sense we are doing it every day. Structural physiology, for instance, proves

the negative proposition that cows are not carnivorous, just as structural botany proves the negative that Daffodils are not anemophilous or wind-fertilised plants.

"Novice" has appealed unto structural botany and to structural botany he shall go. Wind-pollinated plants, then, are usually monœcious or diœcious, that is, they bear the male and female flowers either separate on the same plant or on separate plants, as distinguished from hermaphrodite plants, such as the Narcissi, which have their male and female organs within the same flower. Their pollen is exceedingly fine, dry and light, the grains being minute and thin-walled like soap bubbles. The stigma is

in weight, almost as grains of rice are to flour. The former lay mostly dry and separate on the microscope slide, while the Daffodil pollen tended to congregate in sticky clusters. It was shown that the slightest shake or breath upon the Hazel catkin, held some distance above the stigma, covered it with pollen grains, which it caught exactly as the tentacles of a crimson Sea Anemone catch its floating food. On the contrary, considerable violence was needed to detach the Daffodil pollen, and when detached it did not float in the air but fell vertically. Now, "Novice's" position in regard to these facts is curious. If he knows them, they nullify his words just quoted; if he is ignorant of them, he is also ignorant of

I am grateful to "Novice" for clearing my position; he could not have served me better than by this attack. It is well known that I have assigned parentages to scarcely any of the multitude of flowers I have raised during all these years. Why, then, did I break my rule in this case? Because it was a case of exceptional certainty. This flower was raised from seed obtained very early in the year, when no Daffodils were in bloom outside, in a greenhouse where none but trumpets were in bloom. It is therefore an Ajax of pure descent; nor can it be made into anything else by any portentous measurements, even if clearly formulated in Colney Hatch. "Novice" very kindly advises me as to my



CHINESE ASTERS IN AN OLD ORCHARD.

usually brush-like in form, to offer a large intercepting surface to the air-borne pollen, and designedly unprotected by any sheltering corolla, such as that of the trumpet Daffodil, in order that there may be no barrier to the access of the pollen.

Two good and common examples may be observed at this date, the Hazel and the Yew, both of which may be seen "smoking" with pollen in a wind. Yesterday (February 11) I had the pollens of both under the microscope, for the instruction of one of my men; also pollen of a forced Daffodil for comparison. This last, as compared with the two former, appeared in shape, size, and thickness of wall, and therefore

the structural botany which he so readily advises me to study.

I must deal briefly with one more of his attacks, since he has made it very personal to myself, and himself calls it "very important," in fact, his big siege gun. "I will crystallise the point," he says (I wish I knew how to crystallise a point), "by a specific example." He then takes me to task severely for presuming to assert that my own seedling, White Emperor, is of pure Ajax descent, despite all the difficulties I have alleged of ascertaining parentage, and in the face of the "clearly formulated requirements as to measurements set out in the Royal Horticultural Society's Regulations."

studies. I am sure, therefore, since his name implies modesty and teachableness, that he will accept a little advice in return. Let him, then, refrain from calling other writers' words "effusions" and their quotations from authorities "the dragging in of names." This is the attitude of those who divide opinions into "principles," which are my opinions, and "prejudices," which are yours. We are not helped towards truth in this way. Let him also read what is written before he answers it. And I make a free gift to his "incontrovertibility" of the invaluable observation, attributed in my Oxford days to the wisdom of Jowett, that "*not even the youngest of us is infallible.*"

ANNUAL FLOWERS IN THE ORCHARD

HERE is the list of annuals I intend to sow this month in my own little old orchard (the large new orchard is sacred to hay and to Mushrooms). First and foremost, a good variety of all sorts of Ornamental Grasses. Next, of course, come Shirley Poppies. A few white double Poppies are effective—while they last. Then Pot Marigolds and Borage; these on poorest soil will go on flowering up till Christmas, usually. I always sow them together. Tall double Clarkias in all shades (except purple); these are lovely. Coreopsis (atrosanguinea is red velvety and my favourite). Blue Cornflowers, the tall ones, and tall Larkspurs—not the horrid, stodgy, double ones—and a lot of—oh, dear! I never can spell it—Eschscholtzia. Gaillardias (annual ones), “Gay Lords” I call them. A few mixed miniature Sunflowers (sow these later). Pink and white Malope; these are rather large but lovely. Where the grass is short I sprinkle Nemophila; this looks like a Gentian in the grass, though in flower-beds it is weedy. Phacelia campanularia (fearful name, is it not?) is another little blue gem, and keeps on flowering ever so long if not gathered. Nigella Miss Jekyll.—This is Love-in-a-Mist, the prettiest blue one. Sweet Scabious; this old-fashioned flower must not be left out; and the blue annual Woodruff is pretty to gather.

Now as to how to sow them. I put the packets of seeds in my big garden apron pocket, and take a large rake, also a small boy with a wheelbarrow full of sifted leaf-mould, a quart of silver sand in its native bag, and a garden sieve. Thus equipped, I stroll around and rake drifts, also interlaced circles, in various sizes in the thin grass, and very thinly sow the seeds in such colour contrasts as fancy dictates. Then the boy will sift just (and only just) enough earth to cover the seeds and a sprinkling of silver sand to show where one has sown; and finally, with stately elephantine tread, I press the earth smooth and firm, and leave all the rest to dear old Dame Nature.

ANNE AMATEUR.

THE CROWN IMPERIAL

THE stately Crown Imperial was a most important flower in English gardens in the seventeenth century. Nearly everyone had a good word for it, and presumably few gardens of any size were without some examples. Cowley voiced the plant's feelings thus:

“Since on my stately stem
Nature has plac'd th' Imperial diadem,
Why all these words in vain? Why all this noise?
Be judg'd by Nature and approve her choice.”

Stephen Blake “counted it the worthiest of Spring flowers,” and Parkinson placed it first in his “Garden of Delight” because of its “stately beautyfulness.” It is somewhat, then, of a surprise to find Woolridge (“J. W.” as he so frequently signed himself) in his “Systema Horticulturæ” “damning it with faint praise,” even when the number of varieties had increased towards the end of the century—“They are but dull flowers.” As it is now, so it was then; people did not all like the same thing—luckily!

JOSEPH JACOB.

NOTES FROM MYDDELTON HOUSE GARDEN

By E. A. BOWLES, M.A., F.L.S.

SUNDAY, February 13, was Crocus day in this garden. Much in the same way as we have seen quiet and orderly citizens bedeck themselves with tiny flags on the various “days” of our Allies, so every bed

to others in extreme old age that had not yet toppled over, to open as widely as possible and add to the show of colour.

C. tommasinianus did more than any other to provide varying shades of lilac and purple. For in spreading both by seed and the multiplication of its corms it even beats the autumnal C. speciosus, and is certainly the freest seeder of any Crocus I know, and might easily become a weed and a nuisance if allowed to spread as it liked among other species. But for a rather wild slope of the rock garden, or in a bed among deciduous shrubs, it can hardly spread too fast or too far. A small clump planted twenty years ago under a Magnolia stellata has spread up



CROCUS TOMMASINIANUS PICTUS.
(From a drawing by E. A. Bowles.)

and border, and many of the garden paths where seeds had been swept to the edge, were gay with widely opened Crocus blossoms. In fact, it was the first February day on which the sun shone whole-heartedly and uninterruptedly for the whole morning, causing every Crocus flower from those just escaped from their spathes, and down the hill, but downward mostly as the increase is chiefly by seed, until there is to-day a lilac veil over many square yards of that slope, and the wave spreads in annual ripples down the lower bank on the other side of the path. On a more level stretch, for the greater part overspread by a miniature forest of Prunus nana,

the Dwarf Almond, another colony of the Crocus is claiming fresh territory each season, and though the ground here is fairly full already of various bulbous plants, Snowdrops, Daffodils, Camassias and Muscaris, besides many other Crocuses, there seems room for it and them all.

In autumn it is blue with *C. speciosus*, and in early spring the lilac of *C. tommasinianus* makes a background for small colonies of other flowers. Every year the first sunny day that finds *C. tommasinianus* ready to respond to its warmth seems to work a miracle, and to produce flowers suddenly from the ground. This is due to the dull grey, inconspicuous shades of the outer surface of most forms of this variable Crocus, and also to its very slender bud. The segments are wrapped around it as tightly and neatly as the silk of a dandy's best town umbrella, but act contrariwise, opening for sunshine and closing for a shower. Thus on a dull day the buds make but little show, but a warm gleam unfastens the greyish white outer segments, and the delicate lavender, amethyst, lilac, or rosy mauve inner segments light up the scene as though by magic. As this season is such an early one and the winter's wet and other worries have made the tidying up all behindhand, this part of the rock garden is still untouched. Brown leaves lie on the ground; the dead stems of Campanulas, *Digitalis ferruginea* and such things are still standing among the Almond twigs. A week ago I was ashamed of its appearance and thought of Dr. Watts' Sluggard's Garden, but now I rejoice in it, for I never saw *C. tommasinianus* look so lovely as it does against the brown shades of leaf and twig and dead kecksies. Lavender and russet beds will not be easily achieved by the colour schemers, but any who saw this wild corner could not fail to want one.

Another advantage of this sluggard's style of gardening is that, up to the present, the sparrows have not attacked the Crocuses, as they have in all the tidied up parts of the garden. It is either not trim and townified enough for their tastes, or they do not like steering their way among the kecksies.

Where *C. tommasinianus* seeds freely it varies much, and this corner has given me several good things in spontaneous, original ideas of the Crocus itself. Just as a dog always remembers the place where he once saw or smelt a rabbit, and ever after rushes thither full of hope of another glimpse or whiff, so I never pass this corner in Crocus time without rolling my eye over its contents. My first good find appeared in 1902—a rosy lilac form with a white tip to each of the outer segments, but chiefly remarkable for the wonderful spot of rich purple just under the white. This spot looks so much as if it had been painted on that I have always called the form *var. pictus*. The one corm was nursed in the frame for a few seasons, but proved as lavish of increase as the ordinary form, and so is now in many a garden where Crocuses are prized.

I wish paint could have been used instead of pencil for the accompanying sketch of its charms. Several deeper-coloured or more rosy forms have been forked out from this colony, and by sowing their seeds even better forms have been raised. The best up to date is of such a warm purple that it looks almost crimson in bright sunlight, and it also has deeper colouring in the tip of each segment. This marking is characteristic of certain Eastern Crocuses. In *banaticus* it is regularly present; a few seedlings of the Greek *veluchensis*

have shown it; while the forms of *vernus* known as *Leedsii* or *Dandy*, and *leucorhynchus* have it beautifully clear in contrasting purple and white.

I believe all these species will intercross easily. I have several unmistakable hybrids of *vernus*, *leucorhynchus* and *tommasinianus*, and one I believe to be the latter and *banaticus*. Some day a lumper will perhaps place them all under *vernus*. A white *tommasinianus* comes up now and then, but is only useful as a contrast, as there are so many better white Crocuses; the pure white form of *biflorus Weldenii*, for instance. I have been pleased with one with very rosy inner segments, which contrast prettily with the grey outside of the outer ones, and another with buff outside.

C. aureus lacteus is rather an uncommon plant, of a delightful old ivory tint, only to be found elsewhere among Crocuses in the autumnal *C. Boryi*. Never before has it flowered here while the deep orange *aureus* has been still good, so perhaps it will not again. But just now the contrast of the two is charming, and in one slope where they have got mixed up a little, by the seeding of the orange one I expect, each looks better than usual for the presence of the other.

Few people seem to know and value *Scilla sibirica multiflora*. It is always three weeks ahead of the old type, and though not of such a deep Prussian blue, is yet quite blue enough to be better away from lilac Crocuses. It seeds very freely and has spread into the path, and the little colony has been lovely for the last ten days among the grey stones at a turn of the path. Now, *Scilla bifolia* Pink Beauty and the white form of *sibirica* are out on either side of it, and other forms of *bifolia* are appearing. The colour of the typical *sibirica* would fight dreadfully with all these or with *Chionodoxas* for my taste, but I like this *multiflora*'s tone among the others. *Romulea nivalis* is a useful plant to grow among small alpine. Its stiff, Rush-like leaves stand up 8 inches in height, and the Crocus-like flowers lean out from the tuft almost at a right angle. They are white inside with a yellow throat, and prettily banded with rosy purple outside. It sows itself about, and as it does no harm to its neighbours, being so stiffly upright, I am glad to see it spearing through some neat *Dianthus*, or *Draba*, or the coarser *Aubrietias*. *Synthyris rotundifolia* is a good addition to dainty and tiny plants that flower early. The leaves turn a deep bronzy green, and set off the wee bell-shaped flowers by contrasting so effectively with their skim-milk shade of whiteness. A little tuft is very pretty now at the foot of a rocky crevice in which *Primula Allionii* has been flowering for weeks past, its soft pink flowers with their clear white eyes looking almost too large to be borne among such tiny rosettes of leaves.

One seldom sees the large form of the Lesser Celandine, *Ranunculus Ficaria*, from Italy. It is, however, a very handsome plant, and well worth making happy in a sheltered nook in rich, well-drained soil. The bright green leaves appear in December and are as large and handsome as those of a *Caltha*, while the flowers measure over 2 inches across when fully expanded, and stand up on stakes nearly a foot high. The varnished effect of the bright yellow petals is as brilliant as in our native weed, and the ring of orange stamens round the green carpels gives a perfect finish to a very beautiful flower.

The white form of the wilding is also in flower, but the blooms are not so large nor so pale as

those I hope to see a little later when there is more sunshine. Then a clump covered with its creamy sulphur stars, each glittering as though just varnished by the fairies, is a goodly sight, although the plant is only a white form of one of our worst weeds.

NEW AND RARE PLANTS

AWARDS OF MERIT

Kennedya rosea.—The *Kennedyas* constitute a small group of climbing or twining leguminous plants limited to Australia and more frequently referred to *Hardenbergia*. Formerly they were seen either as trellis-trained examples in the greenhouse or affixed to the roof rafters, whereas to-day they are rarely met with. That named above is one of the prettiest of them, a delightful plant meriting a wider cultivation. The slender though wiry stems are furnished with greyish, ovate-acuminate leaves, the racemes of pink and white Pea-shaped flowers appearing in every leaf-axil in the upper parts of the plant. It is an elegant and graceful climber of quite moderate proportions. Flowering sprays were sent by the Countess of Cranbrook, Great Glenham House, Saxmundham.

Cineraria Matador.—This is remarkable by reason of the rich cinnabar red colour of the florets, a shade quite novel among these plants and difficult to describe. From Messrs. Robert Veitch and Son, Exeter.

Primula malacoides King Albert.—This is the variety to which we extended unqualified praise in our report of the last meeting of the Royal Horticultural Society (see *THE GARDEN* for February 19). At that meeting the newcomer was entered for a certificate as "*Rose Queen*," under which name a variety had already received an award. The twain, however, are quite distinct, and "*King Albert*," being a much superior variety, carried the award by a unanimous vote. The flowers, arranged in whorls, are large, rich rosy lilac in colour, and produced in compactly arranged spikes. For all who garden in greenhouse or home, the plant is ideal. From Messrs. James Carter and Co., Raynes Park, S.E.

Crocus aerius.—From the colour standpoint we believe this lovely Grecian species to be unique. The dominant tone of the outer segments is rich violet with purplish shading, the inner petals of lighter hue with still lighter interior, and rich orange scarlet stigmata. Wedded to this exceptional colouring is a well-formed, round-petalled flower. No description could, however, give an adequate idea of the beauty of the plant. It must be seen to be realised. From Mr. G. Reuthe, Keston, Kent.

Lælio-Cattleya Erzerum (*Lælio-Cattleya* Mrs. Temple × *Cattleya Trianae*).—A handsome and good, well-set-up variety, having broad sepals and petals of satiny rose colour and large crimson purple, much goffered lip. From Messrs. Armstrong and Brown, Tunbridge Wells.

Odontioda Dora (*Odontoglossum* Jasper × *Odontioda Vuylstekeae*).—A small plant bearing a two-flowered raceme was shown. It is a shapely variety of exceptionally dark purplish colouring and pinkish inclined margin. The lip is of pinkish hue, with golden lines above. From Messrs. Charlesworth and Co., Hayward's Heath, Sussex.

The foregoing plants were before the Royal Horticultural Society on February 22, when the awards were made.

AN IRIS PLANTING
EXPERIMENT

THE following experiment, recorded in the Journal of the Royal Horticultural Society for December, 1915, will be read with interest, particularly at this time of the year. "The recommendation is usually made to plant tall Bearded Irises immediately after flowering. This is the practice we have ourselves followed for many years with success, but Mr. E. H. Jenkins, a member of the Floral Committee, suggested in 1913 to us that better results would be obtained if the planting were done in March, and asked us to make a comparative trial. We accordingly lifted six pieces of each of three well-marked varieties and planted them on March 25 in an open place. Each piece consisted of a single growth and a single piece of rhizome. The varieties selected were one of the *germanica* section, Argus; one of the *variegata*, Gracchus; and one of the *pallida*, Queen of May. No new strong roots were being formed at this time, and only in Argus were new laterals growing, while the lateral buds were so small as to be almost invisible. Of these pieces only one of Queen of May produced a flower in May, 1913, four of Gracchus, and none of Argus. On June 24 six similar pieces of each were lifted and planted side by side with the March-planted ones. These pieces were such that they had reached the same development in March as had those then lifted. The new buds were advancing and new main roots were just beginning to develop.

Every one of the March-planted Argus flowered in October of that year, but, none of the others.

The number of spikes of flowers produced by each set of plants at the different seasons up to June, 1915, is shown in the following table:

Variety.		No. of spikes produced.			
		Oct., 1913.	May, 1914.	Oct., 1914.	May, 1915.
Argus	.. March planted	6	16	0	58
"	.. June planted	0	4	6	32
Gracchus	.. March planted	0	43	0	98
"	.. June planted	0	14	6	51
Queen of May	March planted	0	6	0	29
	May June planted	0	3	0	4

It is evident that the March planting gave better results in future years than did the June planting, but it must not be overlooked that most of the 1913 flowers were lost."

SEED DISPERSAL OF HELLEBORUS
FŒTIDUS

At a recent meeting of the Linnean Society of London, Mr. T. A. Dymes read a paper entitled "On the Seed-mass and Dispersal of *Helleborus fœtidus*, Linn.," summarised as follows:

The seeds of *Helleborus fœtidus*, L., are remarkable in being shed from the follicle in a single mass, bound more or less tightly together by a thick, white ventral strip of oleaginous tissue. Owing to the contrast of the shining elaiosome



THE EARLY MEGASEA LIGULATA THAT REQUIRES PROTECTION.

with the almost black seeds, the mass as a whole bears, at a short distance, a deceptive resemblance to the larva of a beetle. Observations were made over two consecutive nights on the work of the snails, which disintegrate the mass by devouring the elaiosome, thus reducing it eventually to single seeds.

Experiments were also made with a view to establishing the possibility of molluscan dispersal of single seeds over a short distance. Observations in Nature and on captive *Helix aspersa* point to the conclusion that the elaiosome offers an attraction as a molluscan dainty in the way of food.

Experiments in the open do not support the idea of the larval resemblance being an adaptation to ornithochory, or that there is any regular

dispersal by the birds of the neighbourhood. Observations and experiments with the ants, *Donisthorpea nigra* and *Myrmica lævinodis*, prove that they carry off whole masses, fragments and single seeds, and take them into the nest. On the other hand, their behaviour does not favour the suggestion that the larval "mimicry" is operative, as far as they are concerned.

The claim to myrmecochory is not a valid one. As far as the ants are concerned, neither the larval resemblance nor the massing brings to the species any advantage which it would not possess if the seeds were shed singly, as is usually, if not universally, the case with those that are adapted to these insects. The larval resemblance, which cannot be denied, suggests an adaptation to some still unrecognised agent or agents, and observations at the distributional headquarters of the species are much to be desired, in order to clear up the mystery of the mass.

SOME SHELTER-
ING DEVICES

BY GERTRUDE JEKYLL

THE pretty pink bloom of *Megasea ligulata* is so valuable for cutting at this early season that it is worth taking a little pains to save it from being spoilt by severe frost. Hitherto we have stuck short twigs of Scotch Fir between the plants, but they are rather top-heavy and twist about with wind. This year we hit on the plan of using Whortleberry, of which there is a thick undergrowth in the upper part of the wooded ground that adjoins the garden. The result is quite satisfactory, for not only does it give just the needed protection, but the transparent screen of fine green tracery has actually a charming effect, making a kind of tender, mysterious veiling over the pink of the flowers, the quality of pink that in *ligulata* is so pleasing, but that in the

cordifolia section is so rank and offensive. The protection also has the advantage of drawing up the stalks a little taller, and of loosening the head of flowers into a more graceful form than their naturally rather tightly packed truss. Another device that we find satisfactory is used in the case of a precious plant of the handsome pale blue Pea, *Lathyrus pubescens*. The plant is now about 7 feet high and grows against a west wall. To protect it we have hung over it a length of thin, wide-meshed wire netting, with some loose-growing branches of common Heath (*Calluna*) woven into the meshes from the bottom upwards. The Heath is upside down; the butt end woven once in and out holds perfectly; the appearance is in no way displeasing, and the shelter quite effective.

GARDENING OF THE WEEK

FOR NORTHERN GARDENS

The Hardy Fruit Garden.

Brambles and Loganberries.—The fruits of these provide a useful change for cooking and preserving, coming in as they do when other small fruits are getting scarce; but if they are to prove a profitable crop the plants must be provided with ample room and be well exposed to sun and air. A fairly high wire fence makes a suitable support for the shoots, and these should now be tied up. Cut out all the old fruiting wood, and lead in a sufficient number of the young shoots to cover the fence, removing all superfluous growths. If the plants have occupied the ground for any considerable time, some stimulant should be afforded them in the shape of either well-decomposed manure or an artificial fertiliser. Fresh plantations may also be made at this time by suckers removed from the old stools.

Raspberries.—The present is also a suitable time for making new plantations of Raspberries. As a rule, no difficulty will be experienced in getting a sufficient quantity of suckers from existing plantations. The simplest and most efficient mode of training is that adopted by the large market growers, viz., by placing a stout wooden stake at each end of the line, with a few lighter intermediate stakes, and stretching two wires along, one near the top of the stake, about 5 feet high, and the other 2 feet lower down, to which each cane is tied. Young canes should not be fruited the first season, but be cut down to about 6 inches from the ground.

Strawberries.—The autumn mulching, or what remains of it, may be removed now and the hoe run between the lines to check any weeds that may be starting to grow; those growing so near the plant that the use of the hoe would involve danger should be pulled out by hand. A dressing of soot may be given at this time and, if thought necessary, some reliable fertiliser. A few weeks hence another stir with the hoe and a second application of soot will be beneficial, after which some long strawy litter should be spread between the lines, which will for a time act as a feeding agent and later on as a clean bed for the ripening fruit.

Hoeing.—It is important to keep the hoe going frequently in the fruit quarters, as besides preventing the establishment of weeds it aerates the soil.

The Rose Garden.

Standard and Weeping Roses should have their winter protection removed now, for, if left longer, growth will be encouraged prematurely, which, being soft, might get injured by frost later on.

Pruning.—It should be quite safe to commence pruning now. Dwarf Roses should be pruned rather low down to ensure strong shoots. All weak growths should be entirely removed, medium ones shortened to two or three buds, and the strongest growths left rather longer. Where quantity of bloom is aimed at, a few of the strongest growths may be pegged down horizontally over the beds or borders.

Planting.—About this time it is usually noticed what damage has been done to tender varieties during the winter, so that provision can now be made for replacing those that have died, and all planting should be completed as early this month as possible. The winter has, however, been comparatively mild, and no considerable loss is anticipated. The severity of the winter, however, is not so much the cause of losses in the Rose garden as a wet and sunless autumn, followed by early and sudden severe frosts.

Plants Under Glass.

Camellias.—When these have passed out of flower, the bushes may be freely cut back to keep them within bounds. Specimens planted out in good soil make vigorous growth and require regular trimming.

Calanthes.—The bulbs of this deciduous Orchid having rested for some weeks, they should be put under moister conditions to induce them to start. If they are placed in boxes with just as much

leaf-mould and sphagnum as will keep the bulbs upright, root action will soon begin, after which they may be potted into suitable-sized pots. Overpotting should be avoided, the object being to get the pots as early filled with roots as possible, so that feeding with liquid manure can be carried on until growth is finished. The *Calanthe* is not at all fastidious when its needs are understood. The potting medium should be sphagnum, peat, loam, and some dried cow-manure, all in a lumpy condition. Last season I grew these in a Muscat vinery and never had them better, both crops requiring the moisture withheld about the same time, and when the spikes began to show, the plants were placed in a Fern-house to develop their flowers. *C. Veitchii* is the most useful variety to grow.

Cannas.—These make useful and attractive plants for the embellishment of the greenhouse, both on account of their handsome foliage and beautiful flowers. Established plants should be placed in a little warmth to start, and, when they have made some roots and growth, can be divided to increase the stock and be potted into suitable-sized pots. They require ample root room and like a rich compost of loam and decayed manure.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)
Glamis Castle, N.B.

FOR SOUTHERN GARDENS

Fruit Under Glass.

Vines.—In all the vineries attention must be given to the proper distribution of the shoots, the object being to cover the trellis without overcrowding. Healthy foliage should be encouraged in preference to an excess of weak growths. Directly the berries are formed, commence thinning and remove all those bunches not required. Feed the Vines liberally.

Plants Under Glass.

Freesias and Lachenalias.—When these desirable bulbous plants pass the flowering stage, they must be given a light position, also an occasional application of liquid manure. Keep them green as long as possible, but when the leaves show signs of decay, water should be withheld gradually, and the bulbs given a decided rest in a dry, warm position.

Begonia Gloire de Sceaux.—When this handsome Begonia ceases to be attractive, the growths may be shortened and the plants given a partial rest in a greenhouse for the next six weeks. When water is afforded more freely, strong, sucker-like shoots will push up from the base, and when they are 2 inches or 3 inches long they make excellent cuttings. These must always be chosen in preference to side shoots from the stems; they eventually make the best plants.

Salviasplendens.—Old plants may be placed in slight warmth, and if sprayed over occasionally they will soon produce shoots suitable for cuttings.

The Kitchen Garden.

Autumn-Sown Onions.—These should now be transplanted in lines 1 foot apart, allowing 9 inches between the bulbs. The ground ought to be well prepared, and when the plants are re-established the hoe must be used freely between them.

Spring Onions.—The main batch may be sown, providing the soil is in a suitable state. It is best to wait a week or two if it is at all wet and sodden. Sow thinly in drills 12 inches or 15 inches apart and 1 inch deep. Make the surface fairly firm. There are many kinds of Onion to select from, but Bedfordshire Champion and James' Keeping are both reliable.

Potatoes, such as May Queen, may be planted in a sheltered spot to furnish an early supply.

The Flower Garden.

Begonias for Bedding.—It is now time to start the tubers into growth, and a good plan is to place them in boxes containing a portion of leaf-mould and sand, but the tubers should only be partly under the soil. Place the boxes in a warm, moist house or pit, and until growth is evident no direct watering will be needed. When

the young shoots are an inch or so in length, each tuber may be potted; or if a quantity is needed they can be planted out in frames containing 6 inches of leaf-mould and loam. Keep the frames closed for a time, and spray the plants overhead whenever the weather is bright.

The Hardy Fruit Garden.

General Remarks.—Most of the pruning is now completed, and if not already done, such surface-rooting bushes as Black Currants may be mulched with manure. Gooseberries enjoy liberal treatment, but as the American mildew has appeared it is not advisable to treat these too liberally. Newly planted trees should be examined periodically, making the soil firm about the base and giving a stake to any that require support. Trees planted this season may also be pruned, although there is a difference of opinion among growers on this point. Grafting, with the exception of an occasional tree, is rarely practised in small and private gardens, but if any such work is anticipated it may now be carried out.

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NOTES ON AURICULAS

A CORRESPONDENT asks if I would give a list of Auriculas thoroughly up to date, and all good sorts, for a small collection. I have pleasure in doing this, but would point out that a great deal depends on whether they are for exhibition or merely for the grower's pleasure. The fascination of the Auricula is potent and gripping. It appeals to the desire for things strange and almost unnatural as well as to the sense of beauty. All the show section, are, in a way, curiosities. The combination of colours is striking and bizarre, strangely apart from those of any other flower. There are, for instance, combinations of green, black, and white; green, red, and white; grey, maroon, and white; grey, violet, and white, &c., and all are possessed of a subtle sweetness of odour that, again, is a thing apart from the perfume of all other flowers. To anyone starting a collection of these plants, a word of warning should be given. They are not easy doers. Capricious, exacting, demanding care and intelligence in management, they are real aristocrats of the floral world. They will give nothing in return for nothing given; but to those who love them and know how to flower them in perfection they are the pets of the garden, and worth every hour spent with them.

The following is a list of varieties for the novice before detailing the sorts asked for by my correspondent. They are easily grown as Auriculas go, relatively cheap, and quite representative of the cult.

Show Section.—Green edged, Henry Wilson, Prince Charming and Shirley Hibberd; grey edged, George Rudd and Marmion; white edged, Acme and Miss Prim; selfs, Harrison Weir, Mrs. Potts and Ruby.

Alpine Section.—Admiration, Argus, Blue Bell, Ettrick, Firefly, Janet, Miss Berkeley, Mrs. Markham, Rosy Morn and The Bride.

For a really first-class collection I would recommend:

Show Section.—Green edged, William Smith, Prince Charming, Rifleman and Shirley Hibberd; grey edged, George Rudd, George Lightbody, Marmion and Richard Headley; white edged, Guy Cranfield, Eucharis and Acme; selfs, Daffodil, Favourite, Harrison Weir, Lady Veitch, Mikado, Peggy Gibson and Victor.

Alpine Section.—White or cream centred, Regus, Commander, Miss Berkeley, Mrs. Douglas, Prince of Tyre, Phyllis Douglas, Roxborough, Slawater and St. Vincent; yellow centred, Claude Halcro, Duke of York, Golden Dustan, Kaffir, King George, Muriel and Prime Minister. (Brilliant and Mrs. Parton might be added if nine of each division are wanted.)

If plants are secured from a really first-class source, the foregoing would form a most interesting collection; but a very great deal depends on where they come from. In three months or so the purchaser will have to tackle the operation of repotting, and it is then he will benefit from having paid a good price and having dealt with an expert grower. Or, rather, it is the second time he will benefit, for his first substantial advantage will be gained when the plants bloom in April and May, and there is all the difference in the world between an expert's and an ordinary miscellaneous nurseryman's goods in that respect. The advantage at repotting time is very far-reaching in its effect, for each plant is then an actual lesson in the method of repotting. Quality of soil, correct drainage, size of pot, depth of plant—in a word, the whole secret of the cultivation, is there for those willing to learn. When I first was attracted to Auriculas by the magnificent display of flowers at Vincent Square on the occasion of the annual show, in 1908 I think it was, I remember being taken aback at the price of the individual plants. Some were 3s. 6d., some 5s., some 7s. 6d. or more, and my thoughts wandered to the lists of reputable nurserymen who dealt in Auriculas, "all beautiful colours, from prize strain," at 5s. a dozen. Knowing what I do now about these plants, I deliberately decided that I would rather grow only one plant which cost me 5s. or 7s. 6d. than I would 500 of the best mixed Auriculas ever offered to the public. There is no more relationship between pedigree Auricula and its poor kinsman than there is between a Derby winner and a coster's monkey. To anyone wishing to enjoy his hobby I would strongly urge him or her to buy only the best, even if it means starting with only half a dozen plants.

J. L. GIBSON.

GAS LIME AS A CURE FOR CLUB ROOT

THE prevalence of club root in the Cabbage family in some gardens and a means of curing it has from time to time been discussed in the gardening Press and other literature, and been the means also of placing on the market various preparations, all more or less calculated to effect a cure. The cost, in the first place, deters many an anxious grower from experimenting with expensive antidotes; but when a healthy-looking quarter of Cabbages or Cauliflowers suddenly shows signs of giving way, alarm forces him to action. Plant after plant in quick succession, when about half grown, begin first to show a leaf or two turning yellow and, finally, flop over on their sides. When these are pulled up and examined, fibrous roots are entirely absent, and, instead, are a quantity of rough, warty-like excrescences on the base of the stems, which are aptly designated club root.

Agriculturists suffer from a similar disease in their Turnip crop, known as finger-and-toe, but this has been to a great extent eliminated by careful cultivation and a thorough rotation of cropping. In gardens, such a system of rotation cannot be practised; hence perhaps the difficulties of getting rid of club root.

The beneficial effects of gas lime on ground affected by this disease is deserving of the widest circulation, and I have no hesitation in advocating its general use as a complete cure. I do not claim to have made any scientific examination of the disease, its cause, or the properties embodied in gas lime as a cure, or that others may not have practised the same treatment with equal success; I merely set down my experiences.

When I took charge of these gardens upwards of twenty years ago, all varieties of the Brassica suffered severely from this disease, quite two-thirds of the crop giving way annually, the remainder only being saved by frantic efforts at watering with soot and lime water or any other likely antidote. At least, we gave the credit to this treatment when, perhaps, it was only an illustration of the survival of the fittest, or a recurrence of the mystery why "one is taken and the other left."

Deeming that a dressing of lime in some form was required, and finding that gas lime could be had quite close at hand for the lifting, I dressed the whole of the kitchen garden with it, applying it on the surface in early spring after the ground was dug, and spreading it on evenly till the ground assumed a greyish appearance, or about two open handfuls to a square yard. The improvement in the Cabbages the first season was so noticeable that I decided to continue its use, and every season the ground on which this crop is to be grown is treated with gas lime. After the second application, club root was entirely absent from the garden. If further proof of its efficacy was necessary, I could recall the fact that some six to ten years ago, being exceptionally busy carrying out extensive alterations, the kitchen garden did not get its usual attention, one of the neglected items being the dressings of gas lime for a period of four years, and club root began to make its appearance again; but on resuming its application no further trouble was experienced.

Glamis Castle, N.B.

THOMAS WILSON.

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

BEDDING BEGONIA AND OTHER QUESTIONS (J. R.).—One of the most effective pink-flowered bedding Begonias we know is Major Hope, and thinly employed on a groundwork of Alyssum maritimum compactum makes a perfect bed. If this is too expensive, write to Messrs. T. S. Ware, Limited, Feltham, or Messrs. Blackmore

and Langdon, Bath. These firms specialise in Begonias and, selecting to colour, could supply at a cheap rate any shade you desire. For the Geum beds you might use a margin of Tufted Pansy White Empress. We should incline to planting the Geum rather thinly, and bed thinly of the Pansy as well as edging with it. The contrast would be both effective and enduring. Gladioli may be associated with the Delphiniums for extending the season, and white Peach-leaved Bellflower (Campanula persicifolia alba grandiflora) with the Kniphofia, at least for the first season, since the very vigorous nature of these plants and the overwhelming leaf growth would preclude permanently good results. You say nothing of the size of the beds, but if large, say, 12 feet to 20 feet across, we should plant the Kniphofia 3 feet apart, intersperse Campanula pyramidalis alba among them, and a margin with the Campanula first named.

SUBSTITUTES FOR BEDDING OUT (A. H. B.).—The only satisfactory substitute for bedding out is hardy plants, employing that phrase in its widest sense and using Roses, Carnations, hardy Heaths, Azaleas, herbaceous and alpine plants in conjunction with Daffodils, Lilies, Spanish and English Irises and much else from the great wealth of hardy bulbous plants that obtain. To arrange this to a suitable plan and to meet your own requirements as far as possible, a much fuller knowledge of the circumstances would be necessary, particularly as to the size of the beds and their position, sun or shade. The above-named combined planting could not be carried out now, as it is too late to secure and plant the bulbs. In all probability, too, in so old a garden many of the beds would have to be re-soiled, certainly some into which Heaths and hardy Azaleas would be put. If, however, you only desired a temporary rearrangement of the beds, something might be done with annuals, tuberous Begonias and dwarf herbaceous plants, the latter including the ever-flowering Tufted Pansies. The annuals and Begonias would not, of course, be permanent. In all probability Begonias, carpeted with Tufted Pansies, both in variety, would give you the longest possible season of flowering and the greatest wealth of blossom, and with the plants you have—Roses and Carnations—would tide you over your present difficulty. If not, write us again giving fuller particulars.

TREES AND SHRUBS.

PRUNING NEWLY PLANTED SHRUBS (E. T.).—Both sorts of Ceanothus should be left unpruned, but the Clematis Jackmannii ought to be cut hard back to the lowest plump buds.

HOLLY LEAVES (R. F. C.).—Holly leaves are not likely to make very good leaf-mould, and it would not be advisable to mix them with other leaves unless the leaf-mould is to be used for outdoor purposes. If the leaves were burnt and the ashes spread over the ground and dug in they would be almost as useful as if they were turned into leaf-mould.

BOOK ON HEDGES (Lieutenant-Colonel D. C. S.).—We regret to say that we do not know of any book dealing with the treatment of hedges from the point of view you desire. The hedges which offer the greatest attractions to birds are those that have been allowed to develop rather freely instead of being closely cropped. For outside hedges where strength is a consideration, White-thorn and Holly are the two most satisfactory subjects to use; but for inside dividing lines in gardens many free-growing shrubs can be tried, such as Berberis stenophylla, Olearia Haastii, Rambling Roses, Euonymus japonicus and Cornus Mas. All these subjects are popular nesting-places for birds. Privet is not a very satisfactory hedge plant except when closely clipped.

ABOUT SHRUBS (Anxious Amateur).—Carpenteria californica is an evergreen shrub from California which bears very beautiful white flowers in early summer. It is hardy in many parts of the South of England, but it is advisable to give it a position sheltered from cold winds. In height it is usually met with between 4 feet and 6 feet, with a spread of 3 feet or 4 feet. Give light, loamy soil containing a little peat or leaf-mould. Bridgesia spicata is, correctly, Ercilla volubilis. It is a climbing evergreen from Chile and Peru, forming rootlets from the branches after the manner of the Ivy, by which it attaches itself to its support. The flowers are brownish and not very attractive. Plant against a wall or fence in light, loamy soil. Acanthopanax quinquefolia is a bush with five-parted leaves, growing 3 feet to 4 feet high and as far through. The flowers are not attractive. It may be grown in a shrubbery in ordinary garden soil. Edgeworthia papyrifera is found wild in China and Japan. It grows 6 feet to 8 feet high, and bears small, fragrant, yellowish flowers in late spring. It is not generally hardy, and may only be grown successfully outdoors in the warmest parts of the country. A mixture of light loam and peat suits it. Casalpinia japonica is a Japanese shrub of rambling habit with long, spiny branches which bear very elegant leaves made up of a large number of tiny leaflets. Yellow flowers with red stamens are borne in good-sized racemes during summer. It requires a considerable space in an open, sunny position, and should be planted in loamy soil. The ends of the branches may be killed in winter, and they should then be pruned back in February. Benthania fragifera, correctly Cornus capitata, is found wild in North India and China. It grows into a very large bush 12 feet to 18 feet high, with a wide spread. The flowers are small and borne in compact heads surrounded by attractive white bracts, and they are followed by showy red fruits. It is not very hardy, but gives excellent results in the milder parts of the country, particularly in Devonshire and Cornwall. Plant in a sunny position in well-drained loamy soil.

THE GREENHOUSE.

CINERARIAS UNSATISFACTORY (A. K. F.).—The condition of your Cinerarias is undoubtedly caused by some error in their culture, as there is no sign of disease on the plant sent. It is, however, quite impossible to state the reason, though appearances suggest that the plants have been kept in too close and moist an atmosphere, thus leading to a weakness of the leaf-stalks. This is probably accompanied by an insufficient root action, set up, it may be, by the plants having been kept too dry or too wet; probably the latter. Plenty of light and air is very necessary to the successful culture of Cinerarias, and this may have been wanting in the case of your plants.

KITCHEN GARDEN.

CELERY BOLTING (E. M. H.).—No disease is apparent in the Celery sent. It is probable that it has grown in the way it has either from being a poor stock or from having suffered a check through drought before it was earthed up. The latter seems probable, as the growth is, as you say, "bolting," that is, running to seed.

KITCHEN GARDEN FOR A FAMILY OF FIVE (Vegetables).—Our correspondent asks the following question; "Could you let me know in the answers in THE GARDEN about how much kitchen garden would be required for a family of five, servants included, with company part of the year? One Broccoli or Cauliflower required every day during the year, with supply of Potatoes and other vegetables." The best answer to this question can only be a guess, the result depending so much on the quality and nature of the land and on the manure and labour available. Potatoes would be the largest item. Ten tons to the acre is a good average crop, and to supply, say, two and a half tons of these in the course of the year would need a quarter of an acre. If the soil is good, manure supply liberal, and there is no stint of labour, half an acre, we think, could be made to meet such a demand. On the other hand, if the land is rather poor, and manure and labour scarce, the crops would be light, and an acre would be none too much.

MISCELLANEOUS.

BINDWEED (A. R. B.).—The only method of destroying Bindweed is to dig the roots out, if you cannot destroy it by continuous mowing or pulling up the shoots. As a rule, the roots are too deep in the ground to be destroyed by the ordinary preparations applied to kill weeds in grass. If a very strong chemical were used, the grass would probably be killed as well as the Bindweed.

EXTRACTION OF SUGAR FROM SUGAR BEET (G. G.).—Numerous articles on Sugar Beet have been published in the Journal of the Board of Agriculture and Fisheries during the last few years, and two articles giving details of culture and sugar extraction are to be found in the February number for 1915, pages 969 to 1007. By application to the Secretary, Board of Agriculture and Fisheries, 4, Whitehall Place, London, this literature could be procured. The Journal is 4d. per copy, and certain leaflets are issued free of charge.

NAME OF PLANT.—*S. L.*—*Lis japonica*; native of Japan and China, also known as *L. fimbriata*.

NAMES OF FRUIT.—*C. S. C.*—1, Claygate Pearmain—yes, the flavour is remarkably good; 2, Round Winter Nonsuch; 3, Adam's Pearmain, very late.

SOCIETIES

ROYAL HORTICULTURAL SOCIETY.

THE fortnightly meeting of the society was held at Vincent Square on the 22nd ult., an excellent display being brought together. A considerable attraction was the table of forced bulbs sent by Lady Tate. The Primulas from Reading were also good. Of unusual interest and charm was the exhibit of flowering branches of *Eucalypti* set up by Messrs. R. F. Felton, Hanover Square. Alpine exhibits were everywhere, and appear to attract an ever-increasing number; the get-up of these exhibits, too, left little to be desired. Apples of the finest quality, in perfect condition, came from Messrs. Cannell. Carnations, too, were excellent. Orchid exhibits were of much interest and beauty. Some half-dozen novelties gained awards (see "New and Rare Plants," page 116). Quite a small crowd of visitors assembled during the afternoon.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman) and Messrs. E. A. Bowles, W. J. Bean, W. A. Bilney, F. Page-Roberts, J. Green, J. W. Barr, Sydney Morris, A. G. Jackman, George Harrow, C. R. Fielder, J. W. Moorman, John Heal, T. Stevenson, J. Dickson, Charles Dixon, H. J. Jones, A. Turner, C. E. Pearson, W. P. Thomson, J. T. Bennett-Poë, H. Cowley, W. G. Baker, E. H. Jenkins, G. Paul, R. Hooper Pearson, J. F. McLeod and R. W. Wallace.

The table of forced bulbs sent by Lady Tate, Streatham Common (gardener, Mr. W. Howe), was one of the features of the show, and largely attracted, the low-placed table of double width showing the various items to considerable advantage. Occupying central positions and constituting a working basis were three graceful Palms, *Euterpe edulis*

probably, or a near ally. Around these in each case were grouped well-flowered specimen *Clivias*, with, in one instance, the *Poetaz Narcissus Irene*, yellow Tulip *Prince de Ligny*, and others. A second group had Sir Watkin Daffodil, crimson Tulip, and the bicolor Daffodil *Vanilla* in excellent form; the third group having *Jaune à Merveille Narcissus* and others in circles. The ends of the table were filled with Italian Hyacinths in pink and white in one instance, and in the other with *Narcissus odoratus rugulosus* (rich yellow), *Freesia refracta alba*, *Scilla campanulata alba* and *Myosotis* in pots. The ground-work was composed of varied-coloured Hyacinths in groups, and such good single Tulips as Joost Van Vondel (grand white), *Rose Gris-de-Lin*, and others. *Narcissus incomparabilis sulphureus plenus* was very well shown, the yellow Ajax Daffodil *Decora* being also noteworthy. We welcome such exhibits as these from a private garden as the outward and visible sign that, despite the abnormal conditions prevailing, every effort is being made, in some instances at least, to prevent good gardening declining. In ordinary times the exhibit would have obtained a gold medal award, though, on economical grounds probably, a silver-gilt Flora medal was granted.

Not far away Messrs. R. and G. Cuthbert, Southgate, N., arranged a similar-sized table of Tulips alone, the finest bedding and forcing sorts being noted. Of these, Orange Prince, Max Havelock (orange), Mon Tresor (than which no single Tulip we recall is either so large or so richly golden), White Pottebakker, Prince de Ligny (rich yellow, having distinctly pointed petals), and Royal Crown (crimson and gold) were a few of the best in a considerable collection. In a further group this firm staged Lilacs in variety, *Spiraea confusa* (a pretty white-flowered sort well suited to forcing), with *Staphylea colchica* and other plants. Silver Flora medal.

Messrs. R. F. Felton and Sons, Hanover Square, arranged effectively an unusual exhibit of cut flowering sprays of *Eucalypti*, the red-toned buds of *E. resiniferus* in conjunction with the cream of the expanded flowers being singularly beautiful. *E. longifolia* was another notable species among several on view. Of equal decorative merit, too, was *Grevillea angustifolia*, the long, narrow, jagged leaves, dark green above and quite silvery below, and reddish flowers being most effective. *Olearia Fosteri*, another of these silvery-leaved subjects, was also on view. Silver Flora medal.

Messrs. Whitelegg and Page, Chislehurst, contributed alpine and hardy plants, their finer items including the rich blue *Pulmonaria angustifolia azurea*, one of the most beautiful of early flowering herbaceous plants. *Soldanella alpina*, goodly patches of *Saxifraga oppositifolia alba* and the choice silvery *S. calabrica* were others of note. Bronze Banksian medal.

Messrs. W. Cuthbert and Sons, Highgate, N., had a considerable show of Carnations, arranging superb vases of their new scarlet *Malmaison Sabina* and the beautiful pink *Lady Ingestre*. Hardy plants from this firm included a nice lot of *Tulipa kaufmanniana*, *T. k. aurea*, a variety of early bulbous Irises, a very pretty colony of *Soldanella alpina*, and others. Among shrubs, *Camellia reticulata* and *Magnolia soulangeana* were notable, the rich flowers of *Pelargonium Gwynne Powell* showing well elsewhere. Silver Flora medal.

Messrs. Robert Veitch and Son, Exeter, brought handsome flowers of *Magnolia Campbellii*, the pretty white-flowered *Osmanthus Delavayi* being also noted. The certificated *Cineraria Matador*, of a remarkable shade of red, was also from the same source.

Messrs. Sutton and Sons, Reading, filled an extensive table space with the choicest of their high-class strains of *Primula sinensis*, and received a silver Flora medal for the same. Arranging them in baskets chiefly of one colour and interspersing with others, they constituted a most effective whole. Among those of intense colour, the new fiery crimson *Prince of Wales* stood out well from the rest. The Duchess maintaining the unique position it has held now for some years. Pink, Crimson, White, Terra-cotta and Royal White, all of the "Giant" class, were in separate colour blocks. Ruby and White Star shared a group between them, and constituted an effective combination. Snowdrop and Reading Pink were also of merit.

Messrs. Cannell and Sons, Eynsford, Kent, showed a capital lot of well-flowered Cinerarias, the plants evidencing high-class culture and an excellent all-round strain.

Messrs. James Carter and Co., Raynes Park, arranged a charming group of their new *Primula malacoides* King Albert, which gained an award of merit. A fuller reference to it will be found under "New and Rare Plants," page 116. It is quite an acquisition, the warmth of the rosy lilac flowers and the wealth of spikes defying description. Bronze Banksian medal.

Mr. Elisha J. Hicks, Twyford, showed his new single crimson *Rose* very finely, thus demonstrating its good forcing qualities. *Rose Climbing Lady Hillingdon*, bearing several flowers, was also on view. The colour is exquisite.

Messrs. R. Gill and Sons, Falmouth, brought early flowering *Rhododendrons* Mrs. Henry Shilson (pink), Shilsonii (grand crimson), Cornubia (most intense crimson), with *R. arboreus* and many more. Yard-long branches of *Erica codonodes* gave pyramids of its white flowers. *Primula Winteri* was delightful. Silver Banksian medal.

Messrs. H. B. May and Sons, Limited, Edmonton, received a silver Banksian medal for a display of greenhouse Ferns and Cyclamen, the latter, as a central group to the whole, showing well in crimson, white, salmon and other shades of the Giant strain. *Asplenium erectum*, *Davallia Lorraini*, *Gymnogramma schizophylla superba* and *Nephrolepis Marshallii compacta*, among Ferns, were noteworthy. The not often seen *Colmanea magnifica* (scarlet flowers and woolly leaves) was also noted.

Messrs. Allwood Brothers, Hayward's Heath, again showed a representative gathering of Carnations, many fine vases of flowers of leading varieties being staged. The new Perpetual pink-flowering *Malmaison Terrific* appeared to be of unusual merit and excellence.

Among many hardy flowers, Mr. G. W. Miller, Wisbech, staged the double blue *Hepatica*, *Daphne blagayana*, forced Daffodils many tufts of *Snowdrops*, and Christmas Roses.

Quite an instruction and worthy of the silver Flora medal awarded was the grouping of forced bulbs in bowls of fibre from Messrs. R. H. Bath, Limited, Wisbech. In all probability no better demonstration of the value and utility of this phase of indoor gardening has been presented, the quality of the exhibits far above that usually seen with soil-cultivated examples. Of such were the Hyacinths *La Grandesse* and *Grand Maître* (white and deep blue respectively), Tulips *King of Yellows*, *Brunhilde* and *Mon Tresor*, the latter of rich golden colour and quite a superb example. In addition there were such Daffodils as *King Alfred*, *Sir Watkin* and *Crystal Queen*, the latter a Leedsii of much excellence not far removed from *White Queen*, though the smaller-growing white trumpet sort *W. P. Milner* appealed as forcibly as any. Crocuses and *Chionodoxas* were also noted; hence while good and instructive, the exhibit was of an embracing character.

Messrs. W. Wells, Limited, Merstham, had a superb lot of Carnations, representing the highest cultural excellence. *Aviator* and *Champion* (the pick of the scarlets), *Good Cheer* and *Enchantress Supreme* were some, though the pick of the whole were the central vases of *Pink Sensation*, not more sensational in size than we have seen it, but certainly in warmth and intensity of colour. The blooms were really very fine.

Messrs. Waterer, Sons and Crisp, Bagshot and Twyford, had a nicely arranged rock bank, colonising the choicer things freely. Very effective were the opposite-leaved *Saxifragas splendens*, *pallida*, *pyrenaica major* and *alba*; while such indispensable yellows as *Faldonside*, *L. G. Godseff* and *Cherry Trees*, and the white *scardica obtusa* were seen among many. Useful shrubs were associated. Silver Banksian medal.

Messrs. Tucker and Sons, Oxford, also had a choice array of Saxifragas and other alpine; of the former, *S. Ostristii* (white), *S. rochelliana lutea*, *S. dalmatica* (white), *S. Paulinae*, *S. Haagei* and *S. Faldonside* (yellow). Some interesting *Sempervivums* were noted.

Mr. L. R. Russell, Richmond, showed Indian Azaleas.

Messrs. Cheal contributed branches of *Picea* and *Abies* and a considerable collection of alpine.

Mr. M. Prichard, Christchurch, displayed groups of alpine in pots, and here, too, the earliest Saxifragas were much in evidence. *L. G. Godseff*, *Faldonside*, *apiculata* and *Paulinae*, all yellow, were freely shown, *S. oppositifolia major* affording a good bit of colour. *Shortia uniflora grandiflora* was very fine. Silver Banksian medal.

Mr. G. Reuthe, Keston, had *Saxifraga Boydii*, *S. Haagei*, *S. Borisii* and *S. Faldonside* very fine among yellow-flowered Saxifragas; also the white *S. apiculata alba*. His choicer things, however, were *Shortia uniflora grandiflora* and the lovely *Crocus aerius* (see "New and Rare Plants").

Messrs. Low and Co., Bush Hill Park, Enfield, showed a variety of Carnations, together with *Acacias*, *Epacris*, *Cyclamen* and other greenhouse flowers. Silver Banksian medal.

Messrs. Barr and Sons, Covent Garden, had a good collection of Daffodils, a large number of them being marked "Seedling." Flowers of *Iris tingitana* were very fine, also *I. stylosa*. Silver Banksian medal.

Messrs. T. S. Ware, Limited, Feltham, had a choice lot of alpine in variety, *Primula denticulata*, *Polygala Chamæbuxus*, *Morisia hypogæa*, *Anemone blanda* and a whole host of Saxifragas, among others. Lenten Roses were also on view.

Messrs. Jackman and Sons, Woking, showed many alpine, and among them *Cyclamen Coum multipetala* in two or three shades of colour. It is an interesting break and may yet give good results.

ORCHID COMMITTEE.

Present: Sir Harry J. Veitch (chairman), Sir Jeremiah Colman, and Messrs. Gurney Wilson, J. Wilson Potter, C. Cookson, J. E. Shill, J. Cypher, S. W. Flory, W. H. White, C. H. Curtis, W. Cobb, J. Charlesworth, C. J. Lucas, F. M. Ogilvie, T. Armstrong, A. Dye, E. R. Ashton, Pantia Ralli, R. G. Thwaites, F. J. Hanbury, R. A. Rolfe and J. O'Brien (secretary).

Some good things in a collection from Messrs. Cypher and Sons, Cheltenham, included *Cypripediums Venus*, *Helen II.*, *Victor Hugo* and *beekmaniana*, the last very fine. *Dendrobium nobile virginale* was well shown. *D. Ainsworthii intertextum* (white and crimson) and the very dark *Masdevallia Bocking Hybrid* were also noted. Silver Flora medal.

Sir Jeremiah Colman, Reigate (gardener, Mr. W. Collier), sent an interesting lot of miniatures, *Erias*, *Masdevallias*, *Sarcochilus* and *Cirrhopetalum*, all well grown and flowered.

Messrs. Flory and Black, Slough, contributed *Odontodas*, *Cymbidiums* and *Cypripediums* in variety.

Messrs. Stuart Low and Co., Bush Hill Park, Enfield, showed *Vanda amesiana*, the white-flowered *Dendrobium jamesianum*, *Phalænopsis schroderiana* and well-flowered examples of *Sophranitis grandiflora*. Silver Banksian medal.

Messrs. Armstrong and Brown, Tunbridge Wells, showed *Lælio-Cattleya Myra* (yellow and crimson), *Dendrobium nobile virginale* (very fine white), *Miltonia bleuana* and *Cypripedium Holdenii*, somewhat in the way of *C. Maudiae*. The new *Lælio-Cattleya Erzerum* (see page 116) came from this firm. Silver Banksian medal.

THE GARDEN.

No. 2312.—VOL. LXXX.

MARCH 11, 1916.

NOTES OF THE WEEK

Shorter Hours at Kew.—Commencing from February 28, the gardeners and labourers employed in the Royal Gardens, Kew, cease work at 5 p.m. instead of 6 p.m. This means that the houses will close an hour earlier to visitors; but we feel sure that the public will not mind this, considering the long hours worked by the employés in the tropical houses.

Eupatorium vernale.—For decorating the conservatory during the winter, this should be used more often than it is. It is the best of the Eupatoriums, flowering at this season of the year. Its large heads of snowy white flowers are produced during midwinter in an ordinary greenhouse temperature, while its culture is by no means difficult. Large plants give plenty of choice flowers for cutting, while late-rooted plants in small pots are very useful for decorative purposes.

Iris Kämpferi.—For planting by the lakeside few plants are more beautiful or produce such a charming effect as the Japanese Iris, *I. Kämpferi*. Of this Iris there are now many beautiful varieties in charming shades of white, blue, lilac, blush, &c. These can be purchased separately in colours, but mixed seedlings are much cheaper and just as satisfactory. Like all the water-loving Irises, *I. Kämpferi* likes a rich compost to grow in, and this should never be allowed to become impoverished. At Glasnevin it has been found an excellent plan to apply a mulch of cow-manure each spring. This manure is incorporated with some good turfy loam, and the trouble of applying it is amply repaid by the healthy growth of the plants.

Saffron.—In the Middle Ages, Saffron must have run Sage very close in popular estimation as a medicine. English-grown Saffron was the best in the world, and Walden in Essex became Saffron Walden from its soil being peculiarly suitable for its cultivation. The plant which gave this famous drug was the Autumn Crocus, the *Crocus sativus* of botanists, and its harvesting was once of such importance that the advent of Sunday made no difference to the gatherers. Saffron was used for a great variety of purposes.

Surely one of the quaintest was that referred to in the "Lady's Magazine, or Polite Companion," for 1759, page 361, where it is said to be a pleasant cordial to put in tea (!) and ladies are advised to get it out of their own gardens for the purpose.

Muehlenbeckia complexa.—This New Zealand trailing sub-shrub is seldom seen North of the Tweed, and is, we fear, far from well known even much further South. The beauty of the plant lies not so much in its inconspicuous greenish flowers or in its tiny icicle-like fruit, but in its graceful trailing branches and tiny

Narcissus triandrus albus.—This pretty little Daffodil is one of great beauty, and so distinct as to be readily discernible among others. It comes from the mountains of Spain and Portugal, and bears its flowers in clusters upon moderately stout stems some 7 inches to 9 inches high. The flowers are uniform creamy white, the cup being globular and slightly inflated; the perianth segments distinctly reflex, much in the way of a Cyclamen. *N. triandrus albus* is a delightful subject for the rock garden. The greatest success appears to follow when it is given a moderately sunny aspect, planting the bulbs firmly in a well-drained, gritty compost to which some finely crushed chalk has been added.

A Many-Spiked Hyacinth.

Examples of Hyacinth bulbs throwing several instead of one spike of flowers are frequently before the scientific committee of the Royal Horticultural Society, fourteen spikes being the most observed so far. They are derived from the same stock as the single-spiked bulbs, and are picked out at the time the bulbs are lifted by the growers, and sold as miniature Hyacinths. They represent a stage at which the bulb is beginning to produce a number of small ones.

The Lenten Roses.—Comparatively few lovers of hardy flowers can be aware of the many beautiful varieties of the Lenten Rose, *Helleborus orientalis*, or they would be much more extensively cultivated. From January onwards until April the plants are attractive in the garden, and are very valuable to cut for indoor decoration. A

bowl of Lenten Roses many consider surpasses a similar arrangement of the better-known Christmas Roses, *Helleborus niger*. Their cultivation presents no problems, as they thrive in good garden mould and prefer somewhat shaded positions. One of the happiest arrangements is when associated with hardy Ferns. Adverse weather conditions have little effect upon the flowers, for though recently subjected to severe winds and covered with snow, as this melts they are seen to be none the worse. Among the many named varieties are pleasing shades of purple, rose and white, often prettily spotted.



IRIS KÄMPFERI IN THE BOTANIC GARDENS AT GLASNEVIN.

fiddle-shaped leaves, vying with the finest products of our hothouses. It cannot be claimed for the plant that it is absolutely hardy, but grown in not too rich, well-drained soil in a sunny, sheltered position, it will stand a good many degrees of frost with impunity, and when very severe frost threatens, it will well repay the trouble of protecting it with Bracken, Broom, Gorse, or other loose material. The higher reaches of the rock-work are the most suitable situations for this fine-foliaged plant. It is also a suitable plant for trailing over sheltered banks. For mixing with flowers in a cut state it is invaluable.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

The North Border.—At the end of that valuable article on this subject, on page 90, February 19, is a very important pronouncement. It is where the writer suggests that attention should be practically confined to those plants that are known to thrive in any given garden. This is sound advice, and in my opinion the secret of successful gardening. I venture to add three more names to the goodly list of plants given by Mr. Hadden, the success of which is assured on the north border: Solomon's Seal, Lily of the Valley and London Pride (*Saxifraga umbrosa*).—C. TURNER.

Sporting of Bouvardia.—In "Notes of the Week" for February 5 reference is made to the sporting of Bouvardias when propagated by means of root cuttings. I know nothing of the scientific theory connected with the matter, but I do know that in practice it often happens. Since

and Exquisite; and I am certain he would wish to add John Ruskin. I trust THE GARDEN will still continue the articles on border Carnations, for I know they are appreciated by a large number of amateurs.—H. W. FROSTICK.

Cypripedium Fairrieianum.—Having read with interest the remarks in THE GARDEN about *Cypripedium Fairrieianum*, I venture to send you a few lines on the subject. When it was imported in quantity in 1906, we bought about four dozen plants, and after growing them about three or four years we had a group of them photographed, and I send you a print. We also had another group of the same plants taken a little more than a year ago. They have been just as good again this last season. Some of the plants are in 6-inch pots and bore seven flowers each. They are grown in the same house as *C. insigne* and receive the same treatment, with the exception that we use tufa for drainage instead of crocks, and also a little of it mixed with the potting compost. I think our plants are now as vigorous as ever and show no sign of weakening, some of



A WELL-GROWN GROUP OF CYPRIPEDIUM FAIRRIEANUM.

the days when I obtained a number of single blooms on plants propagated from root cuttings of the double variety Alfred Neuner, I have been very chary of propagating Bouvardias in this way, and really there is no need to do so, as cuttings of the young growing tops root so readily.—P.

Yellow Ground Picotee Eclipse.—I was glad to read Mr. Morton's high opinion of Eclipse in THE GARDEN of February 26, and should like to endorse all he says about this grand flower. I find it a nice, clean, compact grower. The bloom of Eclipse he had at Southampton Show last year was certainly remarkable. Although there were other fine Picotees, there was not one that had the slightest chance against his premier bloom. Surely the following record is convincing: Eclipse was awarded premier at the London shows in 1912, 1913 and 1914; at Southampton Show in 1915; at Birmingham Show in 1915; and it shown well this year, I shall expect it to be premier at all the Carnation shows. I think Mr. Morton will agree with me if I state what I consider the best six yellow ground Picotees: Eclipse, Mrs. J. J. Keen, Queenie, Onward, Professor Burstall

them being nearly as strong as those of *C. insigne*. I may say the Orchid committee of the Manchester and North of England Orchid Society gave me a cultural certificate for a small group about two months ago. These few remarks will show you that all the plants of *C. Fairrieianum* are not likely to die just yet.—E. ROGERS.

Rose of Cadenabbia.—*A propos* the note on Rose Fortune's Yellow in the issue of THE GARDEN for February 12, Mrs. Alice Martineau seeks information respecting the variety of Rose growing in the vicinity of Cadenabbia, and I suggest it may be *Rosa damascena* Mme. Stoltz, as this, to my thinking, answers the description as given. This Rose is of uncertain origin, the leaves being pubescent and of a grey-green colour, growth vigorous, and flowers pale yellow, flushed lightly with pale pink, nicely formed for a Damask Rose and deliciously fragrant. It is a variety quite uncommon in this country, and I have only seen it once, growing in the district of Ventnor, Isle of Wight.—GEORGE J. LOVELOCK.

Pruning Spiraea Aitchisonii.—In the valuable notes by Mr. Cecil Bartlett on page 76, issue

February 12, on the subject of "Shrubs to Prune Now," he says that *Spiraea Aitchisonii*, with others he names, "are best when pruned hard back to the old wood." My own experience has been that *S. Aitchisonii* flowers best when left long, and that it does not bloom so well when pruned back. It would be useful to have the experiences of others.—S. A. M. D.

Tropæolum speciosum.—It may interest readers of THE GARDEN to know that I noticed, in the middle of February, shoots 2 inches and 3 inches long on *Tropæolum speciosum* growing on the south wall of a house. They were quite 8 feet from the ground, and several stems were covered with green buds. I never remember a similar occurrence in this district (the North-East of Scotland). The stems are generally cut down to the ground at the first touch of winter's icy fingers. November and the early part of December were very cold. January was mild, but last month, on one occasion, the thermometer registered 35° of frost, but only for an hour or so. This *Tropæolum* did specially well in the North last year. It is well named the "Glory of the Scotch Highlands."—J. G. W., *Aberlour-on-Spey*.

An Early Spring Bell.—Nicholson gives May as the normal flowering period of the Spring Bell (*Sisyrinchium grandiflorum*). This, I think, is rather misleading, as I cannot remember seeing it flowering so late, even in Scotland. In the gardens here—resting on solid clay, and with a slight fall to the north—it usually flowers from the middle of March to the middle of April; but on February 13 I noticed on one clump three blooms fully opened, while the colour was beginning to show on many more, another result of the abnormally mild period we recently passed through. We are now experiencing quite wintry conditions, with frequent snow blizzards, which, let us hope, will cause the flowers of the Spring Bell—Satin-flower, if you will—to remain ensconced in their cosy sheaths, as they are as fragile as they are beautiful.—CHARLES COMFORT, *Broomfield, Midlothian*.

Early Flowering Rhododendrons.—I was interested to read Mr. Comber's account of early flowering Rhododendrons. As he says, *R. noble-anum* has been very fine; the trusses have been larger than usual, and the colour brighter. *R. præcox* and *R. mucronulatum* have been good also. *R. Cornubia*, a newer variety, has given us several of its glorious scarlet flowers. *R. Rosa-Mundi* usually flowers in March and April, but this year it commenced to open its buds in January, and during the last month has been in full flower. We covered a bed of this with frame-lights, and thus were able to cut big bunches of it for the vases, unsullied by rain or frost. *R. fulgens*, on the point of bursting its buds, has been covered with mats; but this sudden severe touch of winter, with 15° of frost on the morning of the 25th ult., will, I am afraid, cause us and other growers of choice plants a good deal of disappointment. The buds of *R. Aucklandii* and its hybrids are in a forward state, and the present frost is sufficient to destroy the embryo flowers of these rather tender sorts.—S. W. PHILPOTT, *The Gardens, Anstie Grange, Holmwood, Surrey*.

Renaming German Roses.—I was very pleased with the editorial remarks in "Notes of the Week" in THE GARDEN for February 26. We have surely enough confusion in the naming of plants without altering them, once they are established. Such practice well deserves the term "stupidity" as applied in THE GARDEN, or even worse. I

well remember the confusion that prevailed in the early eighties over French Chrysanthemums being treated in this way. A set of new varieties sent out by the well-known raiser, M. Delaux, were renamed in this country after prominent members of the National Chrysanthemum Society, or, if it was not then in existence, of the Borough of Hackney Chrysanthemum Society. I was at that time in a trade establishment where new Chrysanthemums were made a speciality. It incurred additional expense, for we had Delaux's set directly it was sent out, and were afterwards led to purchase the renamed ones. Speaking from memory, a few of those on which the changes were rung were Jeanne Delaux, changed to F. A. Davis; M. Deville, which became E. C. Jukes; Monsieur John Laing, renamed J. J. Hillier; Tricolour, which became Mr. J. Starling; and Source Japonaise, changed to R. Ballantine.—H. P.

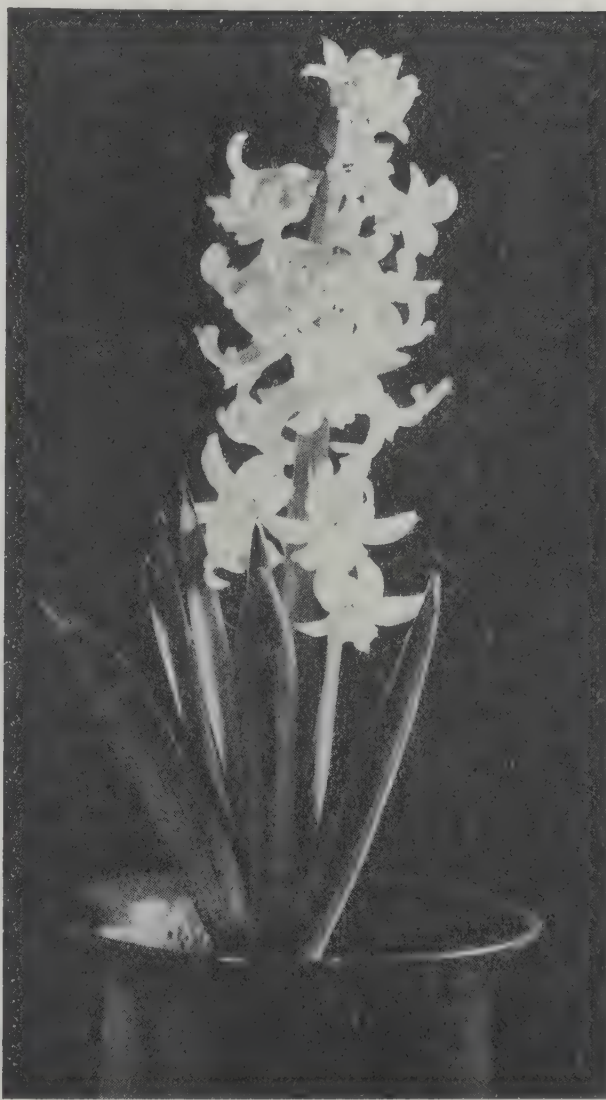
Tree Violets.—Seeing in *THE GARDEN* various questions about Tree Violets, I write to say I remember them very well in greenhouses in Yorkshire fifty years ago. The stems were strong and woody and from 5 inches to 8 inches in height; never more. The Violets were beautiful and very sweet, a rich dark blue and very double, and with plenty of foliage and flowers. I have often regretted they are never seen now. Unfortunately, I remember nothing of their cultivation. They certainly lasted several years and were not propagated annually.—MRS. PORTMAN-DALTON, *Fillingham Castle, Lincoln.*

Large v. Small Vegetables.—In my cottage the little kitchener is 32 inches, and I have never had the pleasure of growing an Onion too large to be cooked on it, whole or otherwise. I find that large Onions are becoming more popular every year, and shall always do my best to encourage the growing of them.—G. ANDREWS.

— I always feel a certain amount of sympathy with all who differ from me on the question of large Onions, and I certainly do feel a little concerned for any fine specimen which might fall into the hands of your correspondent "Anne Amateur," who writes on page 87, issue February 19. I am not at all anxious that the present scope of our workhouses and lunatic asylums should be extended. How very offensive must be a collection of vegetables to "Anne Amateur" such as is represented in the illustration on the same page immediately below her contribution. I pity the poor Onions. It is for the majority, in these days, we have to cater, and the teeming millions of our working population know how to appreciate a large Onion. Why, may I ask, do the large quantities imported from Spain and other centres find such ready sale? The two principal reasons are, I imagine, their large size and their mild flavour, both of which characteristics might be easily produced in Onions grown on land at present lying idle in this country.—E. BECKETT.

The Forthcoming Chelsea Exhibition.—Intending exhibitors are in possession of the schedule for this interesting annual event, to which not only exhibitors, but lovers of flowers and artistic arrangements look forward with pleasure. Many amateurs, and also professionals, make a point of visiting this show to take notes and, naturally, conclude that whatever is there on view is worthy of imitation. Therefore it is very necessary that, for instance, rock gardens should be constructed on the show ground as if done for the permanent planting of alpine plants, instead of to appear fresh for three days. I

have just replanted and rearranged a rock garden for a gentleman, who had it made according to one he saw at Chelsea Show. It was a death trap; in tiers without pockets for choice plants. He informed me that rare alpine soon died, and no wonder. I mention this to point out that the work at shows should be educational. The magnificent collection brought from all parts of the kingdom and the artistic arrangement of this vast display creates for the secretary and superintendent of the society a great amount of forethought, labour and anxiety, and to whom the greatest credit is due for the success of this great exhibition. The congregation of Fellows on the opening day amid the surrounding beauty is a picture not to be forgotten. I trust the gentlemen responsible for this great success will forgive me for introducing



GROWN AND FLOWERED ON H.M.S.
IRON DUKE.

a jarring note, but I do so in the hope that it may be the means of making a very important section of the show ground more interesting and less monotonous to lovers of natural arrangement. I refer to the rock and water garden section. The causes of what I am going to mention originated from a certain firm being awarded the first prize in this class at the Royal Horticultural Society's International Exhibition. The Press then stated that the Craven weathered surface stone was in this firm's favour; but I will do the exhibitor justice and say that the work was naturally and artistically carried out. On account of this award four or five other firms selected similar stone; therefore the rock and water garden sections at Chelsea and Holland House in 1914 and 1915 became monotonous and too much of a sameness. Fortunately, there

were firms who did not depart from what they had been in the habit of using—grit stone, which was a relief. I should like to see more originality introduced, each firm having its own speciality in stone and construction. I consider this would be in their own interests. No doubt I shall be considered one of the old school, but my idea of rock-building is to imitate the upheaval of rock and earth, with the formation of natural pockets for choice plants and larger ones for colonies. Tier behind tier is strata in which only parasites and trailers will grow permanently; the choice gems and slow-growing plants must give way.—A. CAMPBELL, *Ardross, Pannal, Harrogate.*

Hyacinth Grown on H.M.S. Iron Duke.—It may come as a pleasant surprise to many readers to learn that spring-flowering bulbs like Hyacinths, Crocuses and Daffodils are grown by our gallant defenders at sea on board some of our warships. A vase of white Narcissi grown in moss fibre actually bloomed on board H.M.S. *Kent* during the battle of the Falkland Islands, while the Hyacinth shown in the accompanying illustration was grown and recently flowered on board H.M.S. *Iron Duke*. We are not at liberty to mention the name of the sender, although we should very much like to do so, since he is a reader of *THE GARDEN* and the son of an esteemed contributor whose lamented death occurred only a few months ago. The photograph was first sent to Robert Sydenham, Limited, Birmingham, accompanied by the following letter; "I enclose a photograph which, although it is not a very good one, may have some slight interest in the fact that it shows a white Hyacinth grown in your moss fibre under war-time conditions. As you may imagine, the conditions obtaining in a ship of war at the present time are by no means ideal. The result, however, is not entirely unsatisfactory. The height of the flower above the fibre was 11½ inches." We think the subject is very interesting, and it shows how keen our reader must be to continue the growing of bulbs in moss fibre on board his battleship.

A Proposed Tax on Foreign-Grown Bulbs.—I think the time has arrived when British bulb growers should bring to the notice of the Government the necessity of placing an import duty on all foreign-grown bulbs, if the industry is to survive in this country. I should like to see a discussion on the subject opened in *THE GARDEN*.—R. S. COTTON, *The Anglesy Bulb Growers' Association, Limited.* [We agree with Colonel Cotton that when we are settling fiscal questions, which most certainly will have to be settled after the war, the question of the position of bulb growers and bulb traders should be considered among other things. In the first place, there is no doubt that a very large amount of money will have to be raised in the form of taxation on various commodities, and we think that without injuring the trade to any extent a very respectable revenue might be derived by the taxation of bulbs imported into this country from Holland. We do not believe that the tax would in any way diminish the quantity of bulbs imported by legitimate traders. There is one thing, however, we should like to see done in order to protect the legitimate trader and bulb grower, and that is to specially tax the large quantities of surplus bulbs from Holland which are dumped down into the auction rooms. These questions are such as should be dealt with by the Nursery Trade Association. We hope the suggestion may lead to a profitable discussion in our columns.—ED.]

NOTES ON INTERESTING CATKINS

BY A. BRUCE JACKSON.

The Goat Willow or Sallow (*Salix Caprea*, Linn.) is one of the commonest and most widely distributed of our native species, occurring in almost every county of Great Britain from the South Coast to Sutherlandshire, and also in the Shetlands. It rarely attains to a large size, but a tree 50 feet high by 6 feet in girth is recorded from Invernessshire. Trees 20 feet to 30 feet high are not uncommon. The Goat Willow is seldom planted, and yet as a spring-flowering subject a male tree is decidedly desirable for the garden. In March or April its naked shoots, trimmed with bright yellow catkins, often afford an attractive patch of colour in our woods and hedgerows. But the mild January has caused the Sallows to blossom fully a month earlier this year. Catkins of both sexes are shown in the accompanying illustrations. *Salix Caprea* is the only Willow

Aiton, was brought by Lord Rochford from Turin about 1758, and cuttings planted at St. Osyth's Priory in Essex. The remains of two trees of this origin still exist. This Poplar does not seem to be a very long-lived tree, and most, if not all, of the tall specimens mentioned by Loudon have long since disappeared. The largest of these was a tree recorded by Thomas Hogg, forester at Hampton Court, Herefordshire, as growing at Wharton Court Farm, near that place, which in 1879 was said to measure 160 feet. The tree does not attain to such a large size as formerly, and is said to be dying out in Germany. This is possibly owing to the fact that all the trees since the first sport have been raised by cuttings, and that these may now be dying from old age.

Populus berolinensis.—This rare Poplar is said to have originated in the old botanic garden



MALE CATKINS OF SALIX CAPREA.

which grows commonly from seed. As a tree it has little economic value, but the wood, which is light and tough, is used in some places for fences and hurdles.

The Lombardy Poplar.—A photograph of the pistillate catkins of the well-known Lombardy Poplar (*Populus italica*, Moench, *P. nigra* var. *italica*, Du Roi) is of more than usual interest from the fact that the common Lombardy Poplar is usually male. Female trees are exceptionally rare. The specimen represented was taken from a tree about 50 feet high at Kew, which came into flower exceptionally early this year, owing, no doubt, to the unusually mild winter. I noticed woolly catkins on it in 1908, and it also produced flowers in 1910, but these did not mature, though there are staminate trees near. The Lombardy Poplar is said to have originated in Northern Italy somewhere about 1700, and, according to

at Berlin about fifty years ago, and is believed to have arisen as the result of a cross between one of the Balsam Poplars (*Populus laurifolia*) and the Lombardy or possibly the common Black Poplar (*P. nigra*). It is columnar in habit, and thus resembles one of the assumed parents in habit. The original tree is dead, but herbarium specimens show that it was a pistillate tree. There are two trees of *Populus berolinensis* at Kew, and the larger of these, planted in 1880, was 57 feet high by 3 feet 5 inches in girth in 1912, the other specimen being about 50 feet high by 2 feet 8 inches in girth. There are smaller trees at Grayswood and Glasnevin. The male tree, which has been usually known as *Populus certinensis*, has catkins from 2½ inches to 3½ inches long. It is recommended as a useful tree for street planting on account of its fastigate habit. Catkins from one of the Kew trees are illustrated.

ARTIFICIAL AIDS TO DAFFODIL FERTILISATION

AS Mr. E. H. Jenkins remarked in a recent letter in the columns of *THE GARDEN*, "Mr. Engleheart is right—in a way." What he has culled from the works of Körner and Oliver, and Professor Michael Foster, are, of course, known to all students of biology, but I think that Mr. Engleheart has failed to differentiate between admitted fact and that which, of very necessity, must be purely hypothetical. "In all likelihood," with which the quotation from Körner's work is headed, is not the formula of accepted fact, but of surmise and speculation, more, or perhaps less, well founded, but speculation, nevertheless.

And it is pure surmise and speculation, in the present state of definite knowledge upon the point, to suggest that the pollen tubes are led onwards to the ovules by a continuous secretion of sugar on the way through the style, and so on through the micropyle to the ovule. I unhesitatingly say that this has not been proved. It is a possibility, and that is all, that the vegetative nucleus belonging to the large cell of the pollen grain, which is the first to enter the tube, and which for a time takes the lead of the generative cell—the protoplasm of which latter alone uniting with the protoplasm of the ovum—may, and only may, obtain, and therefore seek, nutrition on the way; but this is speculation pure and simple, so far unsupported by a tittle of positive and affirmative evidence. What is the sex impulse, or attraction, which leads the generative cell to the ovum is, throughout all Nature, a secret not as yet disclosed to us.

However, all this is rather by the way to the more practically important point raised by Mr. Engleheart's quotation of Körner and Oliver's remark that "when pollen is artificially cultivated in a prepared sugar solution, several tubes arise simultaneously from different spots, but in Nature on the stigma the production of a single tube is the rule." Anyone with a good microscope may see this for himself. And this leads us to the point—a most important one—which I foreshadowed in my previous letter on this subject, when I wrote: "Possibly Mr. Engleheart overdid the anointing, which is quite easy."

This, to my mind, is the central and all-important matter. One has, by experiment, to seek to so subdue and moderate the process of anointing the stigma, both in the formula of the anointing medium and in the period between the anointing and the application of the pollen grain—in other words, the amount of preliminary evaporation of the moisture necessary, a matter entirely excluded by Körner's method—that the point is reached when over-stimulation ceases, and but one pollen tube only is emitted. Over-stimulation would induce exactly the negative results—failures—of which we hear, for Nature excited out of its ordinary course is apt to rebel.

And in this connection Mr. Engleheart amuses me in his concluding paragraph wherein he suggests that my indication of the varying chemical constituents of different kinds of sugar makes against me rather than for me; whereas, in fact, his paragraph only proves his non-understanding of a very essential point. Basing his remark on a statement by Professor Foster, Mr. Engleheart, without the slightest foundation for the idea, assumes that the "perfect" sugar must necessarily be *to me* that which so highly stimulates

and led up to Professor Foster's argument ; whereas exactly the reverse is the case, if Mr. Engleheart would only understand it. The sugar to me "perfect" is one which, while stimulating, *least* stimulates. The only safe and scientific method is to work gradually upwards from the weakest stimulant, and stop there when the goal seems found ; not downwards from the over-stimulant and stop there, discouraged from further experiment, when you find that you have made a muddle. Broadly stated, my theory or suggestion is this : Not that there is any inherent impediment or defect in the structural conditions of the stigma of the so-called "shy seeders"—taking Empress as an example—but that the provision, in such varieties, of the "fluid matter" on the

That the right moment may, without any outside assistance, perchance be caught is shown by the fact that the varieties Amber and Countess Grey both had Empress as the seed parent. But it cannot be too emphatically pointed out that artificial stimulation should be of the weakest character, potent only to produce the emission of a *single* pollen tube. To induce the emission of several tubes is to weaken the whole sex system and render them all impotent. Hence, in my view, the failures of Körner and Oliver, and Mr. Engleheart. So far as the matter now rests with me, the results to date being, as stated in my former letter, what they are, I am encouraged to go on trying, in the hope that the future may by chance

ferring the Order of Merit upon his subjects. "Flowers and Gardens : Notes on Plant Beauty," by Forbes Watson, has been thus honoured. It is, first of all, the record of what an acutely observant, loving-eyed man saw in such well-known flowers as the purple and yellow Crocus, the Snowdrop and the Primrose ; and, secondly, it is the revelation of a highly sensitive and feeling heart upon certain matters pertaining to gardening ways and doings. His chapter on "Faults in Gardening" was the first stab that "bedding-out" received ; and another, "On the Withering of Plants," brings home to us, in some passages of striking beauty, the wise provision of the Creator in His permitting decay. One of these, on page 199



FEMALE CATKINS OF SALIX CAPREA.



MALE CATKINS OF THE LITTLE KNOWN POPULUS BEROLINENSIS.



RARE FEMALE CATKINS OF THE LOMBARDY POPLAR.

stigma is, for some reason, and under many conditions, insufficient to "feed" the pollen grain to the emission of the pollen tube ; or that the period of so-called "receptiveness," even if effectually present for a time, is so ephemeral and short-lived that it is passed before this is recognised, and the attempt at artificial pollination is made. And, so, what is called for is some method of substituting for Nature's provision something which may feed and stimulate the pollen grain to do its work when Nature's provision is lacking, or has too quickly passed away. But, of course, there is no suggestion that the pollen grains of particular varieties need stimulation. It is simply a question of prolonging or recreating the "receptive" condition of the stigma.

disclose something outside the present position of, to me, merely interesting speculative experiment. A NOVICE.

CANON ELLACOMBE AND FORBES WATSON

WITH the passing away of Canon Ellacombe, one of the great master-gardeners of the world has gone from us. When such a man pulls an almost forgotten writing out of oblivion and himself pens an appreciatory introduction, it is the equivalent, among books, to our gracious Sovereign con-

of the reprint, Canon Ellacombe has singled out. I feel sure many will like to know it. Referring to full-blown flowers, Forbes Watson says : "When we have seen them as long as Nature thinks good to permit, she lays their beauty waste. But before this is done, a close observer will notice that the plant's most subtle and exquisite attractions have been stolen away imperceptibly . . . and that which finally palls upon our memory is not the flower, but the flower robbed of its soul, a mere copy of the great original masterpiece." It is a book written, as the late Canon so well said, "to help others to find the same delights that have brightened my life." To both of these great and good men a tribute of respect is due from all who garden. JOSEPH JACOB.

ROSE GENERAL JACQUEMINOT

UNTIL raisers give us more scarlet and crimson novelties among the Hybrid Teas, we shall be very unwise if we discard the grand old Hybrid Perpetuals of those colours. One of the most useful and best is our old friend General Jacqueminot, raised by Roussel and introduced as far back as 1852. I can remember the time when this grand variety was grown in large numbers, both in private gardens and in market establishments; and even to-day it may be met with in quantity as a commercial Rose, providing its owners with quantities of beautiful and fragrant crimson buds in the Rose season, and we can see the flower-girls of our great cities offering them for sale at three a penny.

It is a Rose that strikes readily from cuttings, so that its rapid propagation is easy; but huge quantities are sold every year budded upon the Manetti stock, an easy method of propagation, but not conducive of the best results as far as quality of blossom is concerned. We may often find the

in 1846, and the one under notice. The Hybrid Chinese variety is not of much value and it is probably unobtainable now, although no doubt it would be found in such a Rose garden as M. Gravereaux's at L'Hay.

The Hybrid Perpetual General Jacqueminot is a ready seeding variety, and is reputedly the parent of such Roses as Duke of Edinburgh, Senateur Vaisse, Xavier Olibo, Horace Vernet, and others, although I fancy much of this is conjectural.

I do not see why it should not be worked upon by hybridists in order to obtain some good crimsons, and probably it has been. Certainly, if we aim at fragrance, as we should do, this Rose would be an excellent parent.



THE WOOLLY PASQUE-FLOWER,
ANEMONE PATENS.

Rose in a winning box of thirty-six or seventy-two at our summer shows, and in most cases I should say such blooms were cut from plants budded on the Briar cutting, a stock that suits exhibition Roses admirably.

This Rose is also potted up extensively to force and to be sold as a pot plant. Plants potted in October into 6-inch pots and placed in a warm temperature and given bottom-heat, either by means of a manure bed or other method, may be flowered finely the first season. It is, however, well to defer the introduction of the plants to the greenhouse until after Christmas, and then they should only be very gently forced.

There are two varieties bearing this name, one a Hybrid China raised by Laffay and introduced

I wonder how many of our Generals and those of our brave Allies will be immortalised by a Rose, as was the case of General Jacqueminot. I recently came across the following lines:

"Who is there now knows aught of his story?

What is left of him but a name,
Of him who shared in Napoleon's glory,
And dreamed that his sword had won him fame.

Ah, the fate of a man is past discerning,

Little did Jacqueminot suppose

At Austerlitz or at Moscow's burning

That his fame would rest in the heart of a Rose."

DANECROFT.

ANEMONE PATENS

THOUGH one of the most beautiful of early spring flowers, the Woolly Pasque-flower, as *Anemone patens* is called, is far from being one of the most common.

Less vigorous than the Pasque-flower (*Anemone Pulsatilla*), which it resembles, it is also less free in flowering than that well-known kind. It is, however, earlier in bloom—April or thereabouts—and the rich purple, often pendent flowers are larger, and for these reasons it is worthy of greater attention from those cultivators of alpine flowers who prefer a procession of choice subjects to occasional display. In the larger rock gardens there is, of course, room for both: food for the eye and the mind of the ordinary observer and the specialist respectively, each of whom views a plant in flower from his own particular standpoint. Accredited to the flora of North America by the "Kew Hand List," it occurs, according to Don, in Siberia, Poland,

Silesia and Switzerland.

That authority also states that "the Siberian plant has yellow flowers, the Swiss and German purplish flowers, the Polish one has them white." The same authority cites var. *ochroleuca*, flowers cream coloured, Eastern parts of Russia. That usually met with in cultivation has purplish

flowers. Fresh seeds vegetate freely, the plant succeeding well in rich light loam mingled with leaf-mould.

E. H. JENKINS.

NARCISSI IN ALPINE PASTURES

THE photograph reproduced on page 127 was taken near Montreux one sunny morning in May, when the lower slopes of the district were as white with the blooms of *Narcissi* as the snow-clad summits in the distance. Seen from afar, the waving drifts of *Narcissi* are easily mistaken for snow. The *Narcissi* of the Lower Alps are, of course, the first to open, and the carpet of bloom creeps upwards to the pastures to an elevation of 4,000 feet. Mr. Henry Correvon, Floraire, Geneva, tells us that it is *Narcissus radiiflorus* of Salisbury, not, as is generally supposed, *Poeticus* of Linnæus, a kind which is very rare in Switzerland, growing only in the neighbourhood of gardens, from which it has escaped.

N. verbanensis (Herb.) is another *Narcissus* that often calls for comment. It is a small, narrow-leaved form, with rather yellowish flowers, which grows near the Lago Maggiore and across the Jura in the Canton of Neuchâtel. It is in May and June that the *Narcissi* of the Alps are at their best. The July flowers in the uppermost pastures are poor in comparison with those on the lower slopes.

NOTES FROM THE RIVIERA

BY EDWARD H. WOODALL.

Templetonia glauca.—If I were planting a garden in any fairly sheltered Southern garden in England, I should certainly give a good space to this charming evergreen shrub. It is quite as hardy as many shrubs often seen in gardens in England, but I have never happened to come across it; hence this note. This early season it is already in beauty, and its masses of Indian red

are few spring shrubs more striking when well grown, even in a pot.

The Anemone Season has now begun, rather later, perhaps, than usual because the autumn rains came late. It is always interesting to observe that the typical wild *Anemone coronaria* flowers earliest of all; that is to say, the purple form flowers first. The red is always a fortnight

hybridise freely among themselves, and the most lovely shades of colour are found in consequence; but otherwise *hortensis* or *stellata* by itself is lilac or white. Plant *A. coronaria* as you will, it will not hybridise with *A. hortensis*, a very curious fact. The Pyrenean form, *A. fulgens*, does not thrive on this coast. It dies out in a year or two, but as the native hybrids of *A. hortensis* are often just as brilliant and much more varied in colour, there is no lack of flowers that look like *fulgens*, at any rate. The garden forms of *A. coronaria* are endless, and this year I have seen one new to me, which, instead of having a number of small petals inside the



NARCISSI IN AN ALPINE PASTURE.

Pea-shaped blossoms grouped up the shoots in the axils of its glaucous blue-green Box-like leaves make it a most conspicuous and beautiful object for some weeks in spring. In cold weather and fully exposed to bright sunshine the flowers soon lose their rich colour, so it should be planted in half shelter, preferably with a western aspect, and as it thrives in any soil, whether calcareous or granitic, that is well drained, it deserves a trial. Young seedling plants need pinching to check the stiff and vigorous young shoots; they always take three years to attain flowering size, but they are worth waiting for where they do well. There

later, and *A. hortensis*, so called, I suppose, because it will not grow in the garden, as *A. coronaria* does, flowers on the grassy banks a little later still. Its former specific name of *A. stellata* describes it so much better that it is a pity the name is superseded. Then comes, latest of all, the handsome golden-eyed red *Anemone* which was once called *pavonina*, and is to me the most beautiful of all. Now I think it is considered a form of *hortensis*, and has no specific name. This is especially abundant between Nice and Mentone. In the happy valleys where both the *hortensis*, *stellata* and *pavonina* forms all grow wild together, they

outer or guard petals, is regularly imbricated like a white *Camellia* of old days. I dare not say it is a great improvement on the lovely forms we know already, but it is very distinct. A beautiful feature just now in the garden is a tall tree-bush of

Buddleia asiatica in full flower, with two lower bushes of *Pyrus japonica* near it equally a mass of flower, and some pretty bushes of *Nandina domestica*, so dainty and elegant in both leaf and berry; while quite by accident (caused by autumn digging) there are irregular masses of *Triteleia* and *Freesias*, both just in early flower starring the rough ground.

A NUT WALK

BY GERTRUDE JEKYLL.

A SHADY Nut walk is a pleasant feature in any garden. It may often be arranged so as to lead from one definite portion of a garden to another, or from the pleasure garden near the house to the vegetable grounds or to woodland; and if it is planted with Cobnuts or Filberts, it will add another to the good harvests of the later year. Where the planting of such a shady walk is in contemplation, it may be well to advise that the Nuts should be planted in a double row on each side, leaving room for flower borders. If the path is 5 feet wide, the inner rows should be 13 feet apart and the outer 21 feet. One row will thus be 4 feet beyond the other. The Nuts should be planted zigzag, so that the outer ones show between the inner. After some years' growth they will arch over the path and meet overhead, so that the borders are in shade in summer but have light enough in early spring for the well-doing of the Lent Hellebores, Primroses and Myosotis,



HARMFUL TO NUT TREES (FOMES ANNOSUS).
One third natural size. Brown and ringed on top and of leathery consistency.

with which they may be planted. These are followed by Columbines and the taller Campanulas.

A Nut walk so planted has given me much pleasure for many years, with its good display of spring flowers followed by its grateful summer shade. But its well-being was not to be without interruption, for one year I noticed that the foliage of one of the Cobnuts was unusually small and looked unsatisfactory, not withered, but shrunk, and the next year all the heavier wood, about 2 inches thick, was dead. It was cut out, leaving a gap that let in unusual daylight. This trouble began near the middle of the length of the Nut walk. The following year the next nearest tree showed the same sign of distress, followed by the death of the older wood. It was only when five clumps had failed in this way that we found out what was the matter. The Nuts were attacked by the fungus *Fomes annosus*. They were rather thickly overgrown at the root by seedling Berberis, and it was only on clearing away this that we found the enemy. It appeared that as Nut after Nut, always in one direction, was attacked, the malignant strength of the fungus had increased, so that, whereas the first Nuts attacked recovered

after the heavier dead portions had been removed, the one that was the latest victim was killed outright. We dug it out and found the whole root in a decayed state and the white strings of threatening mycelium travelling along towards the next. These were carefully followed up and destroyed, and we hope that further danger has been averted. It seems curious that the fungus only travelled in one direction, and that, in the beginning, having attacked a tree once, it did that one no further harm but passed on to the next. Those earliest attacked are growing well again, and have shown no trace of the trouble since the first injury.

THE ETHICS OF ROSE PRUNING

THESE may be very conveniently divided into two great divisions, primarily, "Pruning Proper," and, secondly, "On Ripening the Wood." Considering the first, to prune, or not to prune, is a question of serious importance to the amateur rosarian. A jobbing

able to grow Crimson Rambler and yet make a decided failure of *Rêve d'Or*; he may be able to prune scandent Teas to a nicety, and yet the same practice carried out with those possessing Dijon blood would be worthless if an ample supply of good blooms were required; and who, in his senses (and this is not intended as a disparaging reflection on our worthy friend the jobbing gardener), would prune Caroline Testout the same as he would Dean Hole?

Why prune at all? Let us ramble in the country and have a look at the wild Roses in our hedgerows, such as the common Dog Rose (*Rosa canina*), when in flower, and again as autumn gathers strength. It will be noticed that new shoots are springing from the base for the next summer's bloom, and that the shoots already in bloom exist mainly of year old shoots, two-year old, and even three-year old. The one-year and the two-year ones are carrying the majority of the best blooms; but the still older shoots have a paucity of bloom, and are commencing to dwindle and die back—indeed, many already may be practically dead. This condition of circumstances would prove disfiguring to, and disastrous in, one's garden. Hence the value of *pruning* to anticipate these conditions. The value of pruning may be summarised under three headings: (1) To keep a plant in full vigour—this is the main object—by the production of new basal shoots. (2) To secure flowers of good shape, and yet in sufficient abundance to merit the Rose a position in the garden. (3) To preserve, as far as naturally can be done, the native symmetry of each individual Rose, regardless of the way in which it is cultivated.

"A Rose is not a tree to grow onwards and upwards, but a plant which, in the natural course, every year or two forms fresh channels for the major portion of the sap; and thus causes the branches and twigs above the new shoots to diminish in vitality." *Rosa* does not grow like an Oak or an Elm upon the same original trunk; and the life of the original basals, *while in a healthy floral condition*, is rarely more than three or four years. The reader can now understand why standards are so soon past their prime.

TORBAY.

(To be continued.)

LILIUM LONGIFLORUM

BY SIR HERBERT MAXWELL.

IF the Golden-rayed Lily excels all the rest of the genus in splendour, the Giant Lily in majesty and the Madonna Lily in sculptural grace, the Lily shown in the illustration on page 129 yields to none of these in its shining purity of alabaster bloom. Although the bulbs of this plant in its different varieties are imported annually into this country in tens of thousands, it has never yet received a suitable English name; for, although the Japanese growers call it by a term meaning "Gun Lily," in allusion to the long flower-tube, that cannot be considered a suitable designation for a creature of such supreme refinement; and the trade name "Bermuda Lily" is quite inappropriate for an Asiatic plant, although Harris' variety has been cultivated in Bermuda to such an extent as to exceed all other sources of supply. Unluckily, West Indian growers have allowed their stocks to become so grievously tainted with disease that it is hopeless to attempt

gardener, with his fondness for "making 'em tidy," has no such heart-searching scruples. If the Roses are of the nature of a bush, he tops them, cutting them down evenly; and if scandent in character, the young shoots from the base are carefully cut away year by year, leaving the older ones; and the blooms, strange to say—the ground, really, cannot quite be suitable for Roses!—become fewer and poorer as year chases year. The reader is earnestly urged to attend, as our Dean Hole did, to the pruning of his Roses himself; or, at least, call in the services of some more experienced brother rosarian—services, by the way, which are *always* cheerfully given.

"A master's hand disposing well
The gay diversities of leaf and flower,
Must lend its aid to illustrate their charms,
And dress the regular yet various scene."

Dahlias, Chrysanthemums, Sweet Peas and Cabbages are very nice, and make a garden pleasant and useful; but if you know how to grow one Dahlia, you know how to grow others. Not so with *Rosa*! Her forms are so many and so diverse in growth and habit that a man may be

establishing Bermudan bulbs permanently in open-air borders in the British Isles. They are only fit for conservatory decoration, and are doomed to perish after producing the flowers concocted in the previous summer under a Southern sun.

The type, *Lilium longiflorum*, though grown in immense crops in Japan, is known in a wild state only in parts of China, where it shows a tendency to merge with *L. Browni*, which it betrays by a maroon staining on the outside of the flower. The variety shown in the illustration is known as *L. longiflorum giganteum*, a robust form and very floriferous; but decidedly the best kind for permanent outdoor growth is that which is termed by importers *L. longiflorum formosanum*, from the Liukiu Islands. I have seen a splendid bed of this variety in Mr. Grove's garden at Kentons; but I must own that hitherto it has proved an uncertain and somewhat transient sojourner with me. Only a modest percentage of the bulbs give any signs of life after the display of the first season, the winter rainfall of the West Coast appearing more than this native of a sunnier clime can put up with. Howbeit, its beauty is so perfect that it is worth any amount of trouble and care to meet its wants, and I mean to persevere. Mr. Grove recommends planting the bulbs 9 inches or 10 inches deep in leafy soil free from lime, and, if there is any doubt about rapid drainage, placing an inverted flower-pot under each bulb. It must be said, however, that in his garden, which is on chalk, these Lilies seemed to flourish without this extra precaution.

BORDER CARNATIONS

THE article in your issue of February 12 by J. L. Gibson entitled "Border Carnations — Picotees" is, I think, somewhat of a misnomer, as the present-day cultivator of Carnations rarely thinks of planting out white or yellow ground Picotees, not because they are not sufficiently hardy, but for the fact that the selfs and fancies are much more attractive and very much easier to grow.

In the fourth paragraph of the article in question there is much truth in Mr. Gibson's observations that a "purely artificial weakness" has arisen through "culture under glass"; not, as he says, that they "needed this protection," but because cultivators "delighted to give their charges every care and attention and the best environment for the production of high-class flowers"; but I think that in this connection it may be asserted that the reason for this cultivation under glass has been for the purpose of improving the existing varieties in cultivation by cross-fertilisation, and not necessarily for the cultivation of high-class flowers, as that can be done equally well by border cultivation and attention to detail at the blooming period. I have an instance in my mind as I write of a young exhibitor in the Isle of Wight who showed very fine blooms last July at an exhibition I was judging at in Newport, and who cultivates his flowers outdoors with no protection but glass shades over the individual blooms when coming into flower.

Mr. Gibson's assertion that the yellow ground section "was not many years ago as hardy as any Carnation" has not been my experience, as neither under glass nor in the borders do I find the yellow

ground Picotee so amenable to ordinary cultivation as its white ground *confrère*.

Your correspondent particularly draws attention to Mr. Taylor's yellow ground Picotee Eclipse as being of weak habit, but if he could see Mr. Douglas', Mr. Morton's and some plants I have growing, he would not consider it of weakly growth; but, then, these plants are grown under glass during the winter, which is the only period of the year when Carnations need protection, not because they are not sufficiently hardy, but simply to keep off the excessive rain. These young plants of Eclipse (and this refers to all other

Agnes and Peter Pan have been outclassed now for some years, and Margaret Lennox, in my opinion, is more of a fancy than a Picotee. In the undressed classes, Margaret Lennox cleared the board until the advent of Mrs. J. J. Keen, which, as your correspondent rightly states, is the "almost perfect flower."

High-class white ground Picotees are sufficiently numerous to cause no trouble in making a selection, and they may be set out in order of merit as follows:

Heavy and Light Red.—John Smith, W. E. Dickson, Clytie, Thomas William and Peggy.



A LILY OF REFINED BEAUTY, *L. LONGIFLORUM*.

varieties) could in the month of April be planted out in the open, and I think would give as good results as the more hardy selfs and fancies. The bane of the border Carnation is planting in the autumn, owing to the continued moisture and want of sun-heat.

There is no difficulty in selecting a good dozen yellow ground Picotees as fine as the white ground section, and they are Mrs. J. J. Keen, Eclipse, Queenie, Professor Burstall, Zena Dare, Corona, Exquisite, F. W. Goodfellow, John Ruskin, Onward, Togo and Dago, and to these may be added Her Majesty, Neil Kenyon, Golden Pippin and Cheam.

Heavy and Light Purple.—Margaret, Amelia (very early), Mrs. Openshaw, Edmund Short-house, Silas Osbaldiston, Amy Robsart, Lavinia, Mrs. Hammond, Melita and Somerhill.

Heavy and Light Rose and Scarlet.—Lady Ethel, Lady Sybil, Lottie, Mrs. Sharp, Lady Louisa, Mrs. Payne, Fair Maiden, Fortrose and Favourite.

With the exception of Professor Burstall, all these varieties are in commerce, and Professor Burstall is to be sent out, I believe, by Mr. A. R. Brown in the autumn of this year.

54, The Avenue, Southampton. J. J. KEEN.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Early Peach and Nectarine House.—The fruits in this house are swelling, and they must be thinned gradually until sufficient have been removed. Most of those on the under sides of the branches may be pulled off, leaving the fruits on the upper parts of the trees where they will receive the maximum amount of sunshine. The trees should be syringed twice daily with tepid water whenever the weather is favourable. Growths at the base of the bearing wood must be tied in before they are far advanced, otherwise it is difficult to keep the trees in shape. Keep the border moist by applying tepid water at intervals. Ventilation must be given carefully in suitable weather, and a night temperature of 55° to 60° maintained. When the fruits have stoned, a top-dressing of some reliable artificial manure, well watered in with tepid water, will be beneficial.

Plants Under Glass.

Zonal Pelargoniums.—These are highly prized in some gardens, and if a display is needed in the autumn and winter, a batch of cuttings should be inserted. Pot off directly they have rooted, and give cool treatment to produce healthy growth.

Herbaceous Calceolarias should now be potted on, and when they have filled the receptacles with roots they must be placed in their flowering pots 7 inches and 8 inches in diameter. Grow in a light, cool house with plenty of ventilation. Vaporise the division at intervals to destroy green fly.

The Kitchen Garden.

Cauliflower.—If seeds were sown as advised in January, the plants will be large enough for pricking out in cold frames. When they have recovered from the check of removal, give plenty of air, and this remark applies to those that have been in frames throughout the winter months.

Cabbages.—These have been growing freely, and a dressing of sulphate of ammonia (2oz. per square yard) will be beneficial. Give a good hoeing and fill up any blanks. Another batch

should be planted from the old seed-bed for succession.

Peas.—Make another sowing on well-prepared ground, such as on the portion recently occupied by Celery.

Celery and Parsnips should be lifted and laid in for future use.

The Flower Garden.

Half-Hardy Annuals.—Such subjects as Asters, Ten-week Stock, Zinnias, Marigolds, Phlox Drummondii and Scabious should be sown in boxes of sifted soil and placed in gentle heat, such as a mild hotbed or heated pit. When the seedlings are through the soil, give cooler treatment, and encourage sturdy growth by admitting air on all favourable occasions. When large enough they should be pricked off in boxes or frames, and never be allowed to suffer from drought.

The Hardy Fruit Garden.

Figs.—The pruning of these should be completed before the trees become active. Overcrowding must be guarded against, and in filling up the space on the wall as many fruiting growths should be retained as possible, while provision must also be made for next season's crop.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Cabbages.—The early Cabbages may now receive a second application of nitrate of soda, giving it sparingly and near enough to the plants to ensure its getting to the roots.

Onions.—Autumn-sown Onions may be transplanted in lines about 18 inches apart, or closer if they are required for drawing in a young state.

Shallots come quickly to maturity, succeed in average garden soil, and keep in as good condition as the long-keeping Onions. The sets are best planted in lines, leaving the tops of the bulbs just visible on the surface.

Celery.—Seed should now be sown for the main crop. The red varieties are the hardiest for standing through the winter, so that the bulk of this sowing should be of these. The early sown batch should now be ready for pricking out into boxes of a rich, open compost; they should be grown on steadily without a check, and not allowed to suffer from want of water at the roots.

Tomatoes.—The main batch of these may now be sown. At this season the seeds germinate quickly, and must be placed near the glass as soon as the seedlings appear above the soil. If kept far from the glass or coddled in any way, they very soon become drawn, a condition which is unfavourable to their successful cultivation. They should be pricked off singly in small pots as soon as they are in the rough leaf, and kept moderately close for a few days. The pots will rapidly fill with roots and the plants be ready for potting on or placing in their fruiting quarters.

Fruit Under Glass.

Early Grapes.—Whenever the berries are large enough, and before they become crowded, the thinning of the bunches should be commenced, removing first all bunches that are not required. Unless the cultivator has an intimate knowledge of the varieties grown, it will be as well to thin sparingly at first; and if later on it is seen that they are likely to be too thick, a few more berries may be taken out, removing those towards the inside of the bunch. The variety Black Hamburgh should not be thinned too severely, especially towards the top of the shoulders, or the bunch will be loose when the Grapes are ripe. The aim should be to have a firm and tightly finished bunch of even-sized berries. Such varieties as Gros Colman and Madresfield Court require to be much more liberally thinned than Black Hamburgh. Experience of the different varieties will soon enable one to thin correctly at the first operation. The Vines will now require generous feeding, either with some reliable fertiliser

or liquid manure from the farmyard. Keep the lateral growths regularly pinched after the trellis is well covered with foliage.

Figs.—The early batch of Figs will require some stimulant to assist their swelling fruits. The young growths should be pinched when 6 inches or 8 inches long to encourage a second crop of fruit to set. The house should be kept moist by syringing and damping regularly, and the temperature kept between 60° and 70°, which may be allowed to rise considerably with sun-heat when air is admitted.

Plants Under Glass.

Propagation.

Cuttings of numerous varieties of ornamental stove plants may now be put in. Such subjects as *Eranthemum*, *Ruellia*, *Panicum*, *Tradescantia* and other dwarf or hanging plants for the edges of the stage are best propagated annually. Four-inch or 5-inch pots filled with good soil and surfaced with sand will do for inserting the cuttings, as well as for growing them in successfully for a season. They should be rooted in a close pit and afterwards moved to their respective quarters.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

NESTING BOXES

AT this season of the year wild birds are on the look-out for suitable sites where they may commence house-keeping, and nesting boxes should be fixed in trees and other places without delay. Most gardeners love to have their feathered friends around them. True, the tits and bullfinches often do a lot of damage to the buds of fruit trees; but who does not like to hear the robin singing in the branches, and who does not enjoy his company when digging? Wrens, wry-necks, woodpeckers, wagtails, flycatchers, robins, redstarts and tits may all be enticed to build in nesting boxes made from natural logs. The tops of the boxes may be lifted off at rare intervals for observational purposes, without disturbing the sitting bird. Birds should be encouraged in the garden, and most successful results have been obtained by placing nesting boxes on trees, posts, pillars, walls and other suitable sites.

Through the courtesy of Messrs. William Wood and Son, Limited, Wood Green, London, N., we illustrate two of the Selborne nesting boxes that have proved so successful in gardens. Fig. 1 has a flat back and is intended to hang on a wall among Ivy or on very large trees. It is handy for tits, wrens or robins. Fig. 2 shows the new "Invisible" box, designed by the Chairman of the Brent Valley Bird Sanctuary, for creepers and wrens, but it may prove acceptable to any small birds that build in holes. It is so made that the back of the box slopes upwards and downwards. The hole is at the side, and at a little distance the box is scarcely, if at all, noticeable.



1.—NESTING BOX TO HANG ON WALL AMONG IVY OR ON VERY LARGE TREES.



2.—THE NEW "INVISIBLE" BOX SHOWN IN POSITION AND PLAN.

NOTES ON DAPHNES

THE best known of all the *Daphnes* is the old favourite *Mezereum*, which has flowered this year with great freedom in so many gardens. It likes a mild winter and a sunny spot, while it succeeds in almost any soil. Sturdy bushes with leafless branches 3 feet or 4 feet in height, wreathed with small showy flowers, precious for their colour and exquisite fragrance, are familiar to all. In its leafless condition it is much improved by a carpet of an easily grown plant like Mossy Saxifrages, *Achillea tomentosa*, or Pinks, just to hide its bare legs from Mother Earth. There are single and double forms, a deep variety (*rubrum*) and a white one (*album*), also a somewhat distinct and larger variety that flowers in November, known as *autumnalis*. The single flowers are followed by clusters of red berries that are not without their charm in late summer, while the seeds, if sown in autumn as soon as gathered, may be relied upon to germinate—a little unevenly, it is true, for they sometimes remain dormant a whole season.

Considering the ease with which this *Daphne* may be grown, its cultivation might be worth while from an economic point of view, for the bark is very acrid and is used medicinally, while, previous to the outbreak of war, it was imported in large quantities from Germany. There are scores of common plants that might well be grown on a commercial basis in this country. Why, for instance, are we dependent upon France for the decorative seed-pods of *Honesty*? Literally it comes over by the ton, and yet it grows like a native here. The *Mezereum*, by the way, does grow wild in this country, although it is doubtful if it is truly an indigenous plant.

As Covert Plants.—There are many anomalies among *Daphnes*. Some are evergreen, others deciduous; some like peat, others lime; some love sun, others shade. Of the latter, *D. Laureola*, the Spurge Laurel, and *D. pontica* are two of the best covert shrubs we have. The Spurge Laurel is a native plant, flowering from late December till March, and frequently seen on our chalk hillsides under a fairly dense shade of Beeches, Pines and other trees.

Both *D. Laureola* and *D. pontica* are evergreen, with deep glossy green foliage. Neither of them is remarkable for its flowers, which are yellowish green in colour, those of *D. pontica* being the more fragrant of the two.

For the Rock Garden.—Some well-known alpine plants are included among the *Daphnes*, and of these the Garland Flower, *D. Cneorum*, with its spreading, trailing growths and dense terminal clusters of fragrant rich rosy pink flowers, is the most beautiful. It is evergreen, and flowers more or less continuously from April till September. It makes a very suitable companion to the charming *Lithospermum prostratum* either in the rock garden or in the foreground to the shrubbery. The Rock *Daphne* (*D. rupestris*), which forms

neat tufts carrying soft pink flowers about 2 inches high, is a delightful little plant to grow between the fissures in limestone rock.

D. blagayana, a dwarf alpine 3 inches to 1 foot high, with fragrant creamy white flowers, needs careful handling and no little coaxing in order that it may do well.

D. alpina, with its grey-green, downy leaves and clusters of fragrant white flowers, should have limestone added to the soil, for it is always in the limestone formation in the European Alps that it occurs in the wild state.

The two evergreen species *D. indica* and *D. odora* are not hardy enough to stand outside. The former is a great favourite in the greenhouse



DAPHNE INDICA RUBRA, A SWEETLY FRAGRANT GREENHOUSE VARIETY.

for its clusters of pink and sweetly fragrant flowers. The variety *rubra* has deeper-coloured flowers, and there is also a white variety.

All *Daphnes* resent disturbance at the root, and this explains how it is that the *Mezereum* flowers with such great freedom in cottage gardens where the shrubs are left undisturbed year after year. In any case, *Daphnes* ought not to be moved in the spring unless they can be lifted and replanted with a large ball of soil.

Daphnes rarely attain a very great age. Even in the case of the time-honoured *Mezereum* it is seldom one sees a real old veteran bush, and the same may be said of the Spurge Laurel, planted by Nature with a lavish hand in our woods and copses as an undergrowth to large trees. C.

THE VALUE OF LEAVES FOR FORCING VEGETABLES

BY EDWIN BECKETT, V.M.H.

THOUGH I am not attempting to preach anything new as to the value of leaves for forcing many kinds of vegetables, I want to emphasise its importance, more especially so during these troublous times, as well-grown early produce always realises good prices in our leading markets, and we have in the past had to depend very largely on importations from foreign countries.

There is every probability that during the coming spring, vegetables will be much scarcer than has hitherto been the case; consequently it behoves all who are in a position to do so to cultivate vegetables much more largely in the future.

When one considers the large quantity of leaves which are annually wasted in this country, it is, to my mind, appalling, as these are frequently left to drift about in an untidy state, and in many cases are consigned to the smother fire to be burned. We have here for many years devoted a considerable space in the frame-yard to preserving leaves, and the method is very simple. A piece of ground is fenced in with strong, pickled posts and rough slabs about 4 feet in height, into which the leaves are wheeled or carted, one half of which are taken out every year and replenished with new leaves. The material taken out naturally forms one of the finest constituents for improving the kitchen garden shrubberies and flower borders it is possible to have. One can hardly credit the length of time these leaves retain heat—certainly for many months—and give just the kind of warmth which is so beneficial for the growth of many kinds of vegetables.

The site chosen should, as far as possible, be an open, sunny one, and portable frames of a universal size be used, which naturally should face towards the south. By having these made of one size, the lights can be transferred from one to the other as circumstances may demand.

The kinds of vegetables which may easily be brought forward in this manner are many. Among the most popular are Carrots, Turnips, Vegetable Marrows, Beetroot, Asparagus, Cucumbers, Radishes, French Beans, Spinach, Lettuce and Cauliflower. Vegetable Marrows should be planted immediately after the early forced Asparagus, and, by paying careful attention, good fruits should be ready for cutting early in May. When it is safe to do so, the frames and lights may be removed entirely. This is a great gain over that of planting these out in the open at the end of May.

The other half of the leaves which are left we devote to wintering various kinds of autumn-sown vegetables and for growing early Potatoes. Dwarf Peas likewise do remarkably well.

THE MAKING OF GARDENS.—IV

BY G. DILLISTONE.

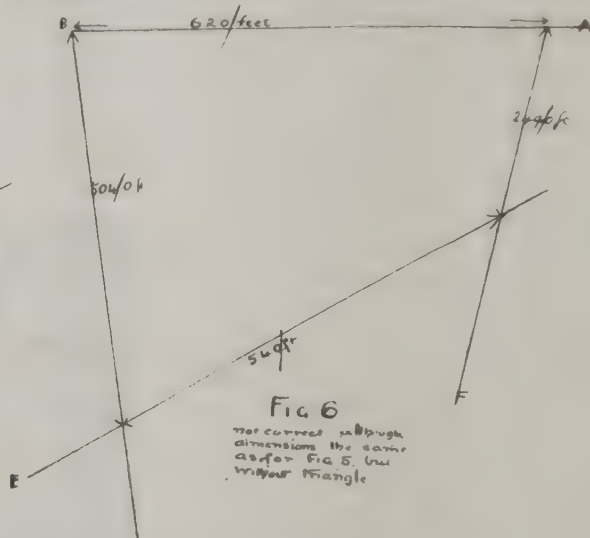
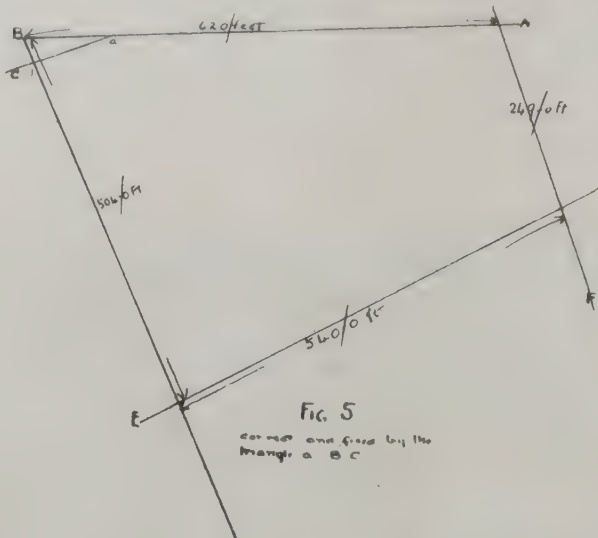
SURVEYING THE SITE.

TO many people unacquainted with mensuration it is not generally known that one may take measurements along four sides of a rectangular plot and draw lines corresponding with those measurements quite correctly, so far as length is concerned, and yet the figure constructed may in every particular essential be wrong. A diagram will explain this. Let lines A, B, E and F form a trapezium as illustrated. In both Figs. 5 and 6 the lengths of the corresponding lines are the same, but it will be seen at a glance that the plot enclosed by them is very different. The best method of ensuring accuracy is to take the measurements for a triangle in one corner, as shown in Fig. 5.

If any fixed point on either line is tied to a point on any other, all the lines will be laid down correctly. This is achieved in the case of lines A, B and C in the plan we are considering by the triangle formed in the corner, at end of line A, where B commences, and is crossed by C. The three entries in the field book relating to this triangle would be: Along line A, at 512 feet, C commences; along line B, at 37½ feet, C crosses; along line C, at 109 feet, C crosses B. The length of the sides of the triangle can therefore be determined, and as every student of geometry knows a triangle constructed under these conditions is infallible, and guarantees that lines A, B and C will all be laid down in true relation to each other, and as the positions where other lines cross these are all known, it ensures every line being laid down in its correct position in relation to each other. There are also other triangles that will serve to check the correctness of the work as it proceeds. Personally, I always try to get as many triangles as possible, or, if there are many trees, to make the whole survey a series of triangles, one side of each forming a base for another. An excellent idea is, if you have to go through woodland and where continuous lines are not practicable and have to show individual trees, to get fixed lines somewhere, and then measure every tree in a series of triangles, as shown in Fig. 7 by the dotted lines.

In taking measurements, always be consistent in taking them to the same relative points. Thus,

centre, or, if very thick, two dimensions should be obtained, one to each side, from the chain line. Measurements to buildings should invariably be made to the outside points at the ground-level.



RECTANGULAR PLOTS OF EQUAL SIDES BUT DIFFERENT SHAPES.

The main points to be remembered are: In the first place, be consistent in taking measurements, always using the same method, so that the right one becomes a habit. Get all you want that can be obtained as you proceed. Do not trust to going back to get it later. Get everything that is likely to be useful; better too many than too few dimensions. If you doubt a dimension, verify it at once. Do not trust your memory or your eye to fill in details. Make all entries in the field book clear and distinct, and give yourself plenty of room to do so. Do not call a Birch an "Oak," or even a "tree"; enter it as a *Birch*. If you do not know what it is, find out if possible; if not, write down "tree," looks like so-and-so. Finally, in taking measurements, do so to the various features as they are, not as they should be or have been; that is to say, measure a hedge to where it has grown, not to where it was planted.

For instance, a pond or lake of one, two, three acres or more may have to be allowed for. In working out the scheme on paper, it is easy to determine the area that will be occupied by any such feature if the plan is divided into triangles and the following rule applied. Measure the length of the base of a triangle in feet, multiply by the length of a line drawn at right angles from the base to the apex, and divide the product by two, the quotient being the area in square feet. Divide this by nine to get square yards, and again by 4,840 to find the number of acres. If it is desired to determine approximately an area of this description on the ground, a good rule is to pace a square, 70 yards each way, the area thus enclosed being a little more than an acre. Having completed the measurements along the first line A and decided by the method I have explained the direction of B and C, the measurements then proceed along these lines, the same course being pursued as already described. It is probable by this time the leader holding the chain will have grasped the significance of the work sufficiently to be able to "line" himself in by looking back along the line where he has two marked points to guide him. It is as well, however, for the surveyor himself to give an eye to this occasionally, or some deviation from the course may occur that will make an infinite amount of trouble in plotting the survey eventually.

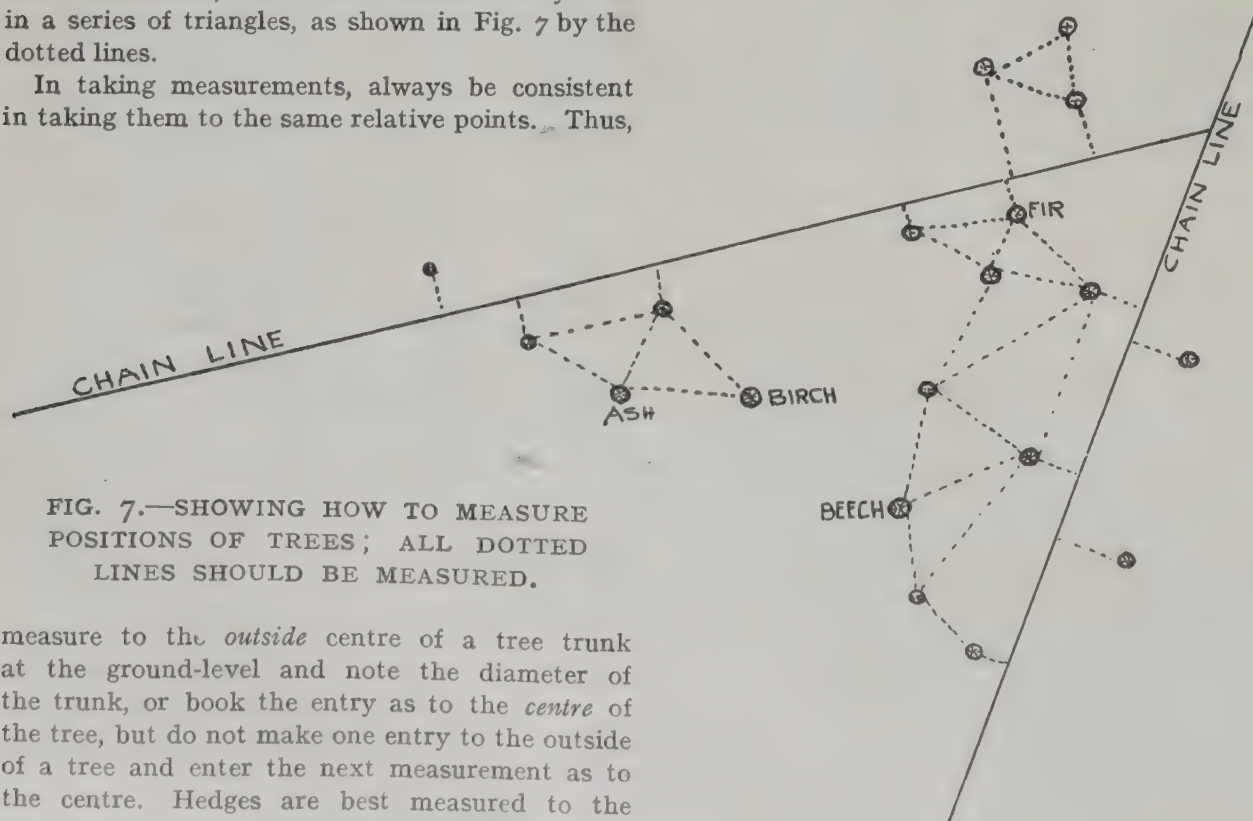


FIG. 7.—SHOWING HOW TO MEASURE POSITIONS OF TREES; ALL DOTTED LINES SHOULD BE MEASURED.

measure to the outside centre of a tree trunk at the ground-level and note the diameter of the trunk, or book the entry as to the centre of the tree, but do not make one entry to the outside of a tree and enter the next measurement as to the centre. Hedges are best measured to the

APPLE LANE'S PRINCE ALBERT

It would be difficult to name a better cooking Apple than this, or one that would please the amateur grower better. The fruits vary in size, but well-grown ones are never small. Bush trees are remarkably prolific, bearing splendid crops year after year; in fact, I should not hesitate to recommend it as the best cooking Apple for an amateur if he wished to plant only one variety. The fruits cook particularly well. They are in season from November to March or April, and if stored in a suitable place they keep splendidly. W.

THE GARDEN.

No. 2313.—VOL. LXXX.

MARCH 18, 1916.

NOTES OF THE WEEK

Forsythia suspensa.—It may not be generally known that the Forsythias may be cut long before the buds open and forced into flower indoors. With a treacherous season such as this, one's hopes of seeing this shrub flowering in the open may easily be dashed.

Freesia refracta Purity.—From Messrs. W. Mauger and Sons, Brookdale Nurseries, Guernsey, we have received a box of blooms of one of the most lovely white Freesias that we have ever seen. The flowers are not pure white, as might be supposed by its name, as they are pencilled with faint heliotrope on the under side. What appeals to us so much is the sweet fragrance of the flowers and the wonderful freedom with which they are borne. The inflorescences are much branched, the terminal in most instances carrying nine flowers and the laterals seven flowers. An average inflorescence, including branches, carries well over forty flowers. The fragile and delicate-looking flowers travel remarkably well, for although they have been on the Editor's table for a whole week, they are as fresh as, or even more so than, on the day on which they arrived, while the whole room is filled with their precious fragrance.

The Kew Guild Journal.—The journal for 1916, just received, will be read with very great interest by Kewites and others in all parts of the world. Many Kew men, both past and present, are now serving with the Colours, and we quite appreciate their feelings of joy when the journal arrives. The lady president-elect of the Guild, whose portrait occupies the frontispiece, is Miss Matilda Smith. Her contributions to pictorial botany are known and appreciated wherever botany is studied and horticulture practised. Mr. H. F. Macmillan, F.L.S., contributes an interesting article on "Stray Thoughts from Ceylon"; and Mr. A. R. Gould, "Impressions of the Panama-Pacific Exposition." "Agriculture in Nigeria" forms an article by Mr. A. R. Bell. The "In Memoriam" pages contain an even longer list of names than usual. Three Kew men have laid down their lives for their country, viz., C. F. Ball, W. H. Morland and H. J. Longhurst.

Kew Men in the Far East.—Mr. E. H. Wilson's article in the Kew Guild Journal on "Kewites in the Far East" is most interesting in more respects than one. He treats with Kewites from the time of David Nelson, the first

Kew man to visit the Far East, who accompanied Captain Cook on his last voyage round the world, 1776—1780. Nelson afterwards accompanied Captain Bligh on H.M.S. *Bounty*, and he was among those set adrift by the mutinous crew, and died from long exposure after reaching Timor in 1789. The genus *Eucalyptus* was founded on *E. obliqua*, which was discovered by Nelson

The largest specimen I saw, and I believe it to be the largest in Kashmir, has a trunk 56 feet in circumference."

Sale of Plants for the Red Cross Funds.—In accordance with a suggestion made by Mr. H. J. Elwes at the annual meeting of the Royal Horticultural Society, on February 8, the President and Council wish to make known that it is proposed to hold a sale of plants, bulbs, &c., in the Royal Horticultural Society's Hall next autumn in aid of the Red Cross Funds, provided the contributions offered for sale are sufficient to justify them in doing so. Those proposing to send plants, bulbs and such like for sale are asked to intimate their contributions beforehand. Owing to the unusually early season, it was not thought practical to hold the sale in the spring of the year, and it has accordingly been deferred to the early autumn. The following sub-committee has been appointed to carry out the arrangements: Colonel Mark Lockwood, M.P., C.V.O., Sir Harry Veitch, V.M.H., Mr. E. A. Bowles, M.A., and the Rev. W. Wilks, M.A., V.M.H.

Chelsea and Holland House Shows.—At the meeting of the Council of the Royal Horticultural Society on March 7, the question was raised whether, in view of the urgent need for the practice of economy on the part both of individuals and corporate bodies, the Chelsea and Holland House Shows should be suspended this year. In the course of the discussion it was agreed that to suspend these exhibitions would be to deal a severe blow to the horticultural trade of the country. The members of the Council, in coming to the decision to hold the shows as usual, expressed their strong conviction that it is the duty of the Council to continue to do all in its power to maintain the prosperity of the horticultural industry; for not only is it to the national interest that horticulture should not suffer more than is inevitable during the war, but, also, it is of the utmost importance that this trade should be in a position at the conclusion of peace to meet successfully the strong competition with which it is bound to be confronted. At the same time it is the intention of the Council to loyally meet the call from the Government for the exercise of economy, and steps have been taken to reduce, as far as possible, the demand for labour and all avoidable expenditure.



THE FRAGRANT AND FREE-FLOWERING FREESIA REFRACTA PURITY, GROWN IN A COOL GREENHOUSE.

in Tasmania. Mr. W. Head writes a delightful story entitled, "In Fair Kashmir." In regard to the trees of Kashmir, he says: "Without doubt the outstanding tree is Chenar, *Platanus orientalis*. It is a tall-growing, spreading tree of noble aspect, and is said to have been introduced from Persia about 300 years ago.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Medicinal Herbs.—I note that Belladonna is now selling at the rate of so much per pound instead of per hundredweight, also that you allude to the superiority of wild over cultivated drug plants. I can tell any correspondent, in private, where some fine plants of Belladonna are to be had, within about an hour's journey of town. I do not want to make this information public property; but Belladonna is so atrociously dangerous that, despite its rarity, I should be glad to think it had been uprooted and used for beneficial purposes.—BORIS.

Present-Day Vegetable Gardening.—Mr. Hudson's remarks in a recent issue are worthy of attention, and I am at one with his suggestion of

in charge the price of the various vegetables now in season. In every case those vegetables which were on view were well grown and of excellent quality; further—and this is the important point—in every instance the largest specimens commanded the highest price. This was especially noticeable so far as Broccoli, Cabbage, Savoys, Cucumbers, Seakale, Asparagus and Beetroot were concerned. Now this to me constitutes a fairly accurate indication of what the public really requires. I suppose there are some vegetables which Mr. Chapman considers can hardly be grown too large. I have vivid recollections of a number of mammoth Capsicums (one of the vegetables which, in my opinion, can easily be overgrown) which for two consecutive seasons were placed by Mr. Chapman before the fruit and vegetable committee of the Royal Horticultural Society. I suppose these were shown with the object of obtaining an award, or at least of popularising them. It may be he will

this note has been personally acquainted with Mr. Harding and his work for many years.—J. WRIGHT, V.M.H.

"Eschscholzia" or "Eschscholtzia."—Your correspondent "Anne Amateur," in writing of "Annual Flowers" on page 115, issue March 4, has a line anent the above, remarking "Oh dear! I never *can* spell it." There is many a true word spoken in jest, it is said; hence it is not surprising that a word presenting such a difficulty to "Anne Amateur" should be wrongly spelled, after all. In this, however, your correspondent is by no means alone, and doubtless 90 per cent. of those who think they *can* spell it correctly would have made precisely the same error. The genus was named in honour of J. Fred Eschscholz, a celebrated naturalist (1793—1831), who accompanied Kotzebue round the world. "Don" in his "Gardeners' Dictionary" (1838), the Royal Horticultural Society's "List of Certificated Plants," the "Kew Handbook of Herbaceous Plants" and

"Index Kewensis" all give the name as at the top left-hand side of this note. Nicholson adds the letter "t" to the name of both naturalist and genus. Most seed lists—those of Messrs. Sutton, Dobbie, Barr and a dozen others I have looked into—spell the name with the added "t," as does the "English Flower Garden" and others. The weight of authority is, however, opposed to this.—E. H. JENKINS.

A Letter from New Zealand.—

I have been for a short trip to the foot of our Southern Alps, and think perhaps some of your English readers might be interested to hear of the plants that grow on the steep slopes and exposed to the cold south-west wind; above all, Celmisias (Mountain Daisies we call them) of all sizes, from little ones about the size of a sixpence to those as large as an ordinary Shasta Daisy. They are all woolly under the stiff, dark leaves, and very woolly up their stiff flower-stems. All are white, with yellow centres. Other tiny Daisies we call Everlastings, as they are crinkly to the touch. They creep about more after the style of Edelweiss. Then there are "Maori



CELMISIA HOLOSERICEA, ONE OF THE LARGER SPECIES FOUND WILD IN NEW ZEALAND.

growing Dwarf Peas which require little or no staking. The 5-foot to 6-foot Peas are quite out of place in a small garden at any time, for, allowing they yield a greater crop, they certainly cannot surpass two rows of 2-foot or three of 1-foot sorts that can be grown on the space one tall variety requires. As to Runner Beans, these when pinched, as is general on market farms, not only produce a great crop, but also come into bearing much earlier. The first pinching induces the lowest flowers to set, and the subsequent laterals also set for the same reason.—T. W.

Exhibition Vegetables v. Utility.—Whenever I drop upon the name of Mr. F. Herbert Chapman in the pages of THE GARDEN, my attention is always arrested and my interest maintained, and this is especially the case with reference to his remarks on the above subject on page 110, issue March 4. As I am particularly interested in this question, I strolled into the shop of the principal fruiterer and greengrocer in a large town not a great distance from here and enquired of the lady

say they were exhibited for the sake of their decorative value; if so, as Mr. Chapman well knows, they should have been placed before the floral committee, which deals with all such exhibits.—EDWIN BECKETT, V.M.H., *Elstree*.

Surgical Operation on a Plant.—On a nobleman's estate in the Midlands were some magnificent flowering specimens of Yucca gloriosa. A violent storm blew the top of one off and scattered the flowers in all directions. It was a grievous calamity. On close examination the head-gardener found no break in the stem, but the top appeared as if blown out of a socket. The gardener decided to replace it and secure it in position. Water was placed in the socket and replenished as needed. The drooping flowers revived and others expanded, as also did the unopened buds, and the plant remained attractive till the end of the season. The gardener who succeeded in the performance of the operation was Mr. A. Harding, who has for some years been enjoying his retirement at Shiplake, Henley-on-Thames. The writer of

Onions," spikes of yellow bloom coming out of brown, narrow (young) Oniony-looking leaves. They grow about 15 inches high, tufts of tussock, yellow in dry places, red in wet, between little white Violets and white Oxalis (about as big as a sixpence), a flower something like a large single white Lobelia, with a mauve lip; afterwards it has a large magenta berry. Scattered here and there are Spear Grasses, all sharp spikes. Even the flower-spike has bunches of sharp spears at intervals. The flowers are small, greenish yellow, among the spines. The dry ones are useful as torches to light the tussocks in the burning season. Another handsome plant is the Snow Grass. I found a tiny green Orchid about an inch high with light green stripes, and there were other small green ones, not yet out. Of course, higher up grow Gentians, Ranunculus Lyallii, Edelweiss, &c.; but this was what I found on the lower slopes about 1,200 feet above sea-level.—MARY POULTON, *Shirley, Christchurch, New Zealand*.

Apple Claygate Pearmain and its Origin.—The very high praise that has lately been accorded to this dessert Apple in the pages of *THE GARDEN* (see Mr. E. A. Bunyard's article on "Flavour in Apples," issue January 29, page 57) has set me enquiring into the history of this variety. I am told by an old inhabitant of Claygate village that this Apple originated, apparently as a seedling, in a hedge surrounding the estate now known as The Firs, Claygate. It was first recorded by Mr. Braddick, who exhibited fruits in or about 1822. Scions from the original tree were grafted upon the Crab Apple stock, and there still remain in the gardens at The Firs, Claygate, three very old trees of this variety. Fruits from these trees were exhibited about 1849 at the Royal Horticultural Society's Fruit Show by Mr. J. Child of Chrysanthemum fame. Even at that date the trees were of a good age, so that it seems reasonable to assume that these trees were grafted before it was introduced by Braddick in 1822. These old trees are still capable of carrying heavy crops, and when in their prime they are said to have borne from 25 bushels to 30 bushels each, while the fruits have been kept sound until June. The illustration is reproduced by the courtesy of Mr. A. Gross, the present owner of the estate.—C., *Claygate*.

White Roses.—A good deal of ink has been spilt of late in dispraise of the use of Latin names for plants and in advocating the employment of existing English names and the invention of new ones. That is all very well, supposing we could all agree upon English names, old and new; but could we? An instance of the ambiguity which already prevails occurs in "Scotch Rose's" note under the above heading (page 110). "The old *Rosa alba*," he says, "as represented in Scotch gardens by the double one generally called Prince Charlie's Rose, is a good white." So it is; but in the South-West of Scotland we call the double Burnet Rose (*Rosa spinosissima*) Prince Charlie's Rose. Where exactness of nomenclature is required, recourse must be had to a dead language.—HERBERT MAXWELL, *Monreith*.

The Romance of Gardening.—The note about Capability Brown in *THE GARDEN* of February 12 prompts the question, How many gardeners or nurserymen have ever attained such success? When the world is less occupied with war than at present, we may get a work on gardening from the human point of view. There is ample material. As to Brown's success, a few names will occur to most as comparative, though I refer only to those who have won fortune by the garden, not amateurs. Sir Harry Veitch is with us; many can recollect his father. Few remain who worked under Sir Joseph Paxton, but there is one close to where I am writing. Sir Joseph owed his success less to ability than the appeal of his personality to his employer, a very usual matter in gardening. I was brought up on the estate of the late Mr. C. Lawson, Lord Provost of Edinburgh. The Lawson memorial is *Cupressus lawsoniana*. Douglas, whose memorial is *Pseudotsuga Douglasii*, was a journeyman gardener, and, out of a situation, was digging with my father in Edinburgh Botanic

Garden on a winter morning when offered the mission to explore the then Far West of America, in search of new trees chiefly. No collector ever so enriched English gardens and woods as Douglas; but, as warned before he went, he lost his life. The human interest deepens in the telling. Even in London how many famous and *recherché* gardens once existed where are now but dreary streets.—HURSTCOT.

Heeria rosea.—This pretty Mexican subshrub does not appear to be so well known as its merits deserve. Although one of some four species, it appears that *H. rosea* is the only one introduced into Britain as yet. Nicholson speaks



APPLE CLAYGATE PEARMAN IN THE GARDEN OF ITS ORIGIN.

of it as a stove plant, but I find that it succeeds well when treated as a greenhouse plant. If, however, it is desired to have it in bloom during winter, stove or warm greenhouse treatment is necessary. I have not as yet tried it outdoors, but last summer I saw it succeeding well in the open in a cosy corner in the Royal Botanic Garden, Edinburgh. As already suggested, the plant is of dwarf habit, and it produces its rosy pink flowers in corymbs in great abundance. Cuttings can be put in a cool house in autumn or in heat in spring, and if grown on in a mixture of turfy loam, peat and sand till they finally occupy 5-inch pots, they form very attractive objects with which to edge the conservatory stages.—CHARLES COMFORT.

THE 1915 "DAFFODIL YEAR BOOK"

IN his latest communication Mr. Engleheart shows that he is angry—very angry—and, like most persons in that condition, manages to lose sight of the real issues and of the necessity for the strictest accuracy of assertion. Under a cloud of words upon the botanical aspect of one particular point, conveying information which may be found in any primer on botany, Mr. Engleheart forgets that he has not acceded to my request that he should indicate where, in any of his former communications to *THE GARDEN*, he has ever employed the phrases which were the alleged basis of his suggestion of misrepresentation of his views. I think that I can well leave this section of the matter to the memorie and intelligence of the readers of *THE GARDEN*.

On the question of the alleged exception of the *Narcissus* from the general rule as to the wind-carrying of the pollen—well, if it makes Mr. Engleheart happy to believe that the wind will not, in this case, carry it, let him be happy, until he tries, on some hot, dry day in the later spring, whether, if he places some ripe pollen of a *Poeticus* upon a glass microscope slide, he cannot blow it away—that is, if the wind does not forestall him.

Lastly, he treats my simple enquiry as to which is to prevail in official classification—whether the statements as to parentage made by the raiser or the formulated requirements as to measurements—as an attack upon himself. There was not, and is not, any suggestion that in the case cited Mr. Engleheart did not honestly believe in the reality of what he stated. So, in no real sense, is there an attack on him. If he can see any attack at all, it must be an attack upon his infallibility, which is a very different thing, and one upon which we are all entitled to our views. That Mr. Engleheart did believe that White Emperor is of pure Ajax descent I do not for a moment doubt; I only doubt his justification for that belief. The reason for his belief he states to be that the flower in question was "raised from seed obtained very early in the year, when no Daffodils were in bloom

outside, and in a greenhouse where none but trumpets were in bloom." And, upon that basis, Mr. Engleheart arrives at the conclusion, as a definite certainty, that White Emperor is of pure, *i.e.*, sole, Ajax descent.

But it seems to me that in arriving at this conclusion Mr. Engleheart has quite ignored certain possibilities of a disturbing character, *viz.*, heredity and reversion. Going a little below the surface of the position which appears to have satisfied Mr. Engleheart, we have to enquire what has been the past history and ancestry of all those other Ajax varieties within the greenhouse, and even of the parent varieties of White Emperor themselves. Surely, all of these had not, *ad*

infinum backwards, been isolated in greenhouses, but must have been, at some period, grown in the open, exposed to all the disturbing influences which Mr. Engleheart has himself enumerated; and so the pollen of varieties not quite Ajax may have affected some of the associated varieties, or even the seed or pollen parents. Indeed, we at present know but little about these subtle workings of Narcissi in their interbreeding processes; but all hybridists have been compelled to wonder how, as products of the same seed-pod, there are such astounding variations of results. We, including Mr. Engleheart, have yet much to learn. But all this is quite beside the original and quite impersonal point which I have restated, and which is of permanent importance, for the question has already arisen with regard to other varieties than White Emperor, and must arise again.

The Council of the Royal Horticultural Society has officially declared that measurements shall alone dominate the question. Mr. Engleheart, in effect, says that nobody outside Colney Hatch would think of such a thing. Again, which is to prevail? A NOVICE.

A PLEA FOR ROSE HEDGES

IN many places some kind of hedge is necessary to divide the flower garden from the vegetable garden, and some shrub, such as Privet, Hawthorn or Holly, is frequently planted. But why not Roses? Is not a hedge of Roses ten times more beautiful than one made of shrubs? Those who have seen large Rose hedges covered with bloom in June and July should not need much persuasion to attempt something similar in their own gardens, instead of planting shrubs; but they do. Very often these people only murmur, "How beautiful!" or something to that effect, and regard these lovely Rose hedges an impossible attainment in their own gardens; so they plant Privet or other shrubs. But, really, there is nothing impossible about it. So long as the reader has an open, sunny spot and fairly good soil, for his Rose hedge there is no reason why he should not attain quite as excellent results as those he has seen. It may be said that time and expense are to be considered, and that Privet or shrubs make the cheapest hedge in the shortest time. So they do, but the hedge produced is an extraordinarily ugly object. People seem to exaggerate considerably the idea that Rose hedges take time to form. One amateur spoke to me of "ten years" and another of "five years" having to elapse before a tolerable hedge could be produced! But these people are under a very great delusion. I have seen Rose hedges of quite passable quality which have only been planted two years, and these hedges were all that could be desired in the third summer. As regards the expense, one must confess that Rose hedges cost a little more in the first instance; but they are quite worth it,

for, when once planted, each one of them is "a thing of beauty and a joy for ever."

It has been said that "a garden is a place for flowers, a place where one may foster a passion for loveliness, may learn the magic of colour, and the glory of form . . ." And if this is true, then ugly features of the garden, such as shrub hedges, should not be permitted. Of course, there are certain positions where Rose hedges could not be formed, but by far the majority of positions now occupied in gardens by Privet and other like hedges could be occupied by Rose hedges.

Some kind of screen or support must be arranged after the soil has been trenched

Dorothy Perkins, Blush Rambler, Crimson Rambler, Hiawatha, Alberic Barbier, Gloire de Dijon and Minnehaha.

Weetwood, Ecclesall, Sheffield.

E. T. ELLIS.

PRIMULA MALACOIDES

SINCE its introduction some years ago from China by Messrs. Bees, Limited, this pretty and graceful species has received considerable attention owing to its being easily raised from seed and capable of being grown successfully with a minimum of trouble. From seed it is possible to reach the flowering stage in about four months, and this fact commends it to the notice of amateur growers. For greenhouse or conservatory decoration it is extremely useful, as during the winter months its delicate pink or lilac flowers are produced in the greatest profusion, even in very small pots, in a compost of good rich loamy soil. For outside culture it is very satisfactory when planted on the rock garden in sheltered, well-drained spots, and it will seed naturally in such a position. As is generally the case with Primulas, it has produced several forms which are superior in certain respects to the typical species, one of which is known as *P. malacoides robusta*. This originated in Messrs. J. Box's Lindfield Nurseries, Hayward's Heath, and is characterised by its robust growth of foliage and stem, and larger flowers, produced in several whorls often 2 feet in height. This distinct robust habit should render it of great use for pot culture, as the stiff stems are thrown well out from the base of the plant, and it is distinct in every way from all others.

Another fine rose form of the type was exhibited last spring by Mr. A. Gentle, The Gardens, Little Gaddesden, Herts, under the name of *P. m. Rose Queen*, and this received an award of merit from the Royal Horticultural Society on that occasion.

The finest of these rose forms, however, is the one exhibited at the Royal Horticultural Society's meeting on February 22 last by Messrs. Carter under the name of King Albert, when it deservedly received an award of merit. Although probably not so robust in habit as the first form noted, it is unquestionably superior as regards colour, which is a bright rose or pink, and should be noted by all lovers of this family.

On February 8 last Messrs. Whitelegg and Page exhibited another form of *P. malacoides* crossed with *P. Forbesii*, partaking of the growth and gracefulness of the former with the rich colour of the latter; but as only small plants were exhibited, it cannot be dealt with until seen under more favourable conditions. Several years ago a double-flowered form was exhibited, but so far it has not been seen since, although in the Lindfield Nurseries the species has broken away and produced several double and semi-double forms which are under observation, as well as several distinctive colour shades which may eventually add to the charm and usefulness of this species, popularly known as the Fairy Primrose. E. S.



PRIMULA MALACOIDES ROBUSTA. A STATELY FORM OF A DAINTY SPECIES.

2 feet and well manured. This can be made by nailing poles of Spanish Chestnut, Larch, Ash or Pine into a kind of rustic trellis. The ends of the poles should be let into the ground 1½ feet to 2 feet, not less, or they will be blown over in strong winds. Plant the Roses 4 feet to 5 feet apart, and tie the growths on to the trellis-work in as artistic a manner as you can. In the summer tie in all strong new growths, cutting out only weak shoots and dead wood. The trellis-work will soon be hidden completely, and some old wood should be cut out every summer after the plants have flowered. Give them plenty of water, and mulch with manure each spring. Good Roses for hedges include American Pillar,

NOTES FROM THE RIVIERA

BY EDWARD H. WOODALL.

Dombeyas.—Two shrubs—I might almost call them trees, as they can grow fully 10 feet in height—are now in beauty, and I fancy they are but little known in English greenhouses. They are both Dombeyas, a sub-genus of the better-known Abutilon, but with much more substantial and woody growth.

D. Mastersii is a winter-flowering edition of Abutilon vitifolium album, and stands a good deal of bad weather when in flower, but its masses of white, Mallow-like flowers are soon browned by a rough wind.

D. Cayeuxii is a curiously different plant, a garden hybrid raised by Messrs. Cayeux of Lyons, which has proved itself a very distinct and handsome tree-like shrub. In foliage and habit it much resembles a very vigorous Sparmannia, though its leaves are much more solid and often oval in shape. The strong shoots will grow to a length of 6 feet or 8 feet in one summer, and in February or March large clusters of very bright salmon pink flowers in a ball hang pendent on foot-long stalks under the massive leaves. The flower clusters are larger than a big Guelder Rose, but the individual flowers are Mallow-shaped, so the effect is very handsome and tropical when grown to perfection. On this coast it needs the warmest and most sheltered corner to show off its beauty; but in a tub under glass I have seen it even prettier, because less vigorous, and I think all lovers of handsome cool greenhouse shrubs who have room for it will admire its spring beauty.

Freylinia cestroides has filled the sunny air with its sweetness this winter. I believe it does not flower when grown under glass, but it is too delightful as a shrub in the open garden to be omitted from any good garden on this coast. Its narrow leaves and upright spikes of buff apricot, tube-shaped flowers are not without beauty, though it is the fragrance that is its virtue.

Bignonia venusta has blossomed without any check since last November, and yet there are myriads of buds to expand, so wonderfully free flowering is it under favourable conditions. Its wreaths of intense orange, Honeysuckle-shaped flowers are the antithesis of winter grime and gloom, and give infinite pleasure to the newcomer as well as to the old resident on this coast. French gardeners are very apt to destroy this delightful creeper by cutting it back in autumn when they prune Roses and shrubs, so it is not seen so often as it should be. More than half the good things that disappear from gardens on this coast are lost on account of this propensity of local gardeners to prune back everything in the months of September and October, quite regardless of the habit and winter flowering of a plant.

Bougainvillea Maud Chettleburgh.—The casual visitor on this coast is pretty sure to notice the rich colouring of the Bougainvilleas on the sunny walls, especially between Nice and Mentone, but I doubt if many are able to distinguish between the autumn and spring flowering kinds, and imagine it is the same plant that is always in flower. This is not so, however, in reality. The autumn-blooming Bougainvilleas are *B. glabra*, which is the palest in colour, and its much brighter

and better congener, *B. Sanderæ*, which is so hardy and so free flowering that it is in full beauty throughout November and December, often lasting through January in seasons such as this. Then comes in the rich *B. spectabilis*, the well-known type of Bougainvillea which carries on the purple glow during the spring, covering immense areas of wall with its luxuriant growth, which needs ample space to develop its beauty. The variety Maud Chettleburgh is slightly less rich in its colouring, being, I believe, a hybrid between *B. spectabilis* and *B. Sanderæ*, but it has the great merit of flowering as a small plant, and lasts in bloom for so many months that I think for most gardeners it is the best and hardiest of all. I hope someone who has grown it in

the complete failure of *Forsythia suspensa* and *F. intermedia*. Not a flower has appeared since the leaves fell last December, though up to that date there was a sprinkling of precocious flowers. The reason, I believe, is that small birds have picked out all the flower-buds, as I remember the same thing happened before in a very mild winter when vegetation was not arrested and the buds were soft and tender. Recently there was a sirocco wind for three days, which forced the temperature up to summer heat while it lasted, and *Iris reticulata* and *Leucojums* flagged and frizzled up in the hot sunshine at once, their flowering period being completely abolished, so to say. Daffodils suffered in the same way, but not so severely. The *Laurustinus* bloom on northern banks has been singularly fine and ivory white in its massive flower-heads, and in combination with purple Sweet Peas, cut with liberal foliage and stalks, a big bowl of these two flowers deserves remark, as the combination



A FLOWERING SPRAY OF DOMBEYA MASTERSII.

England can say it is as free blooming as I believe it to be, for I should certainly say, "When in doubt, plant *B. Maud Chettleburgh*." The very beautiful Venetian red *B. Lateritia* is so capricious and so much more liable to be cut by cold winds or a frosty night when in flower that it can only be planted in the most favourable positions, and its beautiful rose crimson sport is still more delicate, for, though I know of several gardens where it has been planted and cared for, no one as yet has reported a success with it. Still, the Bougainvillea lover, if he is content to plant *B. Sanderæ*, *B. spectabilis* or *B. Maud Chettleburgh*, may expect a harvest of rich colour from October to May; and if he puts in a few plants of the brilliant *Bignonia venusta*, will have an antidote for the blues, if he possesses a sheltered and sunny garden on this coast.

It is not fair to those who garden in more northern lands to say nothing of our failures here. One this winter is very conspicuous in

is certainly not a common one, and it is really strikingly effective.

SOME GOOD HARDY ANNUAL FLOWERS

DURING the next few weeks many annual flowers will be sown in the open ground, and it may be advisable to enumerate some of the best. Thin sowing and early thinning of the seedlings are, however, absolutely necessary to obtain really good results. For edgings, nothing is better than Sweet Alyssum, particularly if the dwarf variety is asked for. The white flowers are deliciously scented. *Leptosiphon hybridus* is another low-growing plant that is also excellent for edgings or for carpeting Rose-beds, providing it is given a sunny position. The small, star-shaped flowers embrace many delicate shades. Virginian Stock, so often found in cottage gardens, is another that might be used for the same purpose. A good

red-flowered variety of it is obtainable. In Southern Counties the so-called Chinese Asters may be sown outdoors, and often do better when treated in this way than when raised in the greenhouse or frame. The same applies to the best forms of Ten-week Stock. *Bartonia aurea* grows 18 inches high and produces medium-sized golden flowers in abundance; it is not grown half so much as it ought to be. The Swan River Daisy, *Brachycome iberidifolia*, is a dainty little blue-flowered annual that grows about 6 inches high; sow it in the front part of the border. Those who like the Pot Marigolds should select the variety Orange King; it is the best of them all. Candytuft has been wonderfully improved in recent years. Cornflower, if the old-fashioned blue is secured, is excellent for cutting. Double Rose Clarkia, listed under several different names, is another flower that ought to be grown everywhere for cutting. *Coreopsis tinctoria*, yellow flowers with crimson brown centres; *Eschscholzia*

position well open to the light, but not sun scorched. As this is a very early flowering Saxifrage (as one would expect from its parentage), it is an ideal plant for pan culture in the alpine house. This plant originated with Sundermann of Bavaria, and a somewhat similar, though distinct form arising, I believe, from the same parentage is *Saxifraga Obristii*. R. A. M.

THE ETHICS OF ROSE PRUNING

(Continued from page 128.)

PRUNING consists of three distinct operations: (1) Removal of all dead, weak, or overcrowded shoots and laterals; or of unripe wood that has been damaged by the frosts of winter, and is therefore valueless for the production

who cannot grow Roses for his sins, is far from well. Although the same variety, both cannot be pruned exactly alike. Another fault is leaving too many shoots when thinning out; but a more serious one is to prune severely those that only need light pruning, or those that require severe pruning to prune as lightly as possible. Two typical faults of our friend the jobbing gardener can be mentioned here. First, he leaves the trees crowded with shoots good and bad, pruning the Rose as he would prune a Privet or Box hedge; and in the case of scandent Roses, removes entirely the new, outside straggling shoots, indifferent as to whether they may be basal or lateral. Secondly, he does not prune carefully upwards to a bud pointing outwards, as that is too much trouble, or he is too conceited to know such. He prefers to leave what are known as "zags," which, dying back, are very apt to injure the tree, besides providing comfortable homes for parasitic and other enemies.

The implements for the operation of pruning are many and wonderful—and unnecessarily diverse in character; though some of the leading rosarians differ much from the writer in this respect. The only essential things are, first, a good knife, which has been previously sharpened on a hone; and, secondly, a fine saw, which is necessary to remove any shoots too stout for the knife. All else are superfluous and luxuries. Mr. Darlington recommends the "Charlie" hone, plentifully oiled with a mixture of paraffin and neatsfoot oil—but never, under any circumstances, olive or other vegetable oil.

Against this may be said that the average jobbing gardener prefers any fairly smooth stone with saliva on it. Dr. A. H. Williams strongly recommends a small arsenal of arms: (1) Pruning-knife, with large blade, point, and two smaller blades. (2) Secateurs, with two curved hawk-like blades. (3) A spud, such as Barr's Daffodil hoe, for suckers. (4) Gloves of strong dog-skin, such as motor ones. (5) A kneeler, such as a waterproof pad or mat.

Mr. Darlington's list of *necessary* requirements is more amplified still. Another pair of secateurs is essential, and a strop in addition to the hone; a styptic, such as white paint, for budded Briars when cut down; and painter's knotting for pruned established plants.

Pruning, in itself, is an extremely easy operation, the only principal difficulty being how much of the tree and its attendant shoots and laterals to remove; but a few essentials are worth remembrance. The amateur should always cut upwards at an angle of 45°, coming out at the top, and then leaving a plump and healthy-looking bud immediately above. This bud should point outwards and away from the centre of the tree. The cut *must* be a clean one, leaving no jagged or damaged bark. In some cases, as when a sucker is to be removed or a basal shoot pruned away, no buds of any sort should be left, though some well-known rosarians believe in leaving a bud behind when cutting away old and worn-out basals. A *basal*, it should be noted, is a ground shoot, growing more or less upright; but a *lateral* is a side shoot proceeding out of a basal one. Sometimes a basal is known as a *terminal*, when it grows a certain height, according to the vigour (or lack of it) of the variety, and then breaking into one or more flowers at the tip. A basal or lateral bud—not a floral one—is horticulturally recognised as an eye.

TORBAY.

(To be continued.)



THE EARLY AND FREE FLOWERING SAXIFRAGA SUNDERMANNII.

californica, yellow; Godetias Crimson Glow and Duchess of Albany; Gypsophila elegans, with small white flowers; White and Pink Mallows and Scarlet Flax are others that ought not to be omitted. H.

SAXIFRAGA SUNDERMANNII

THIS attractive, early flowering hybrid Saxifrage, originating from a cross between *S. marginata* and *S. Burseriana*, is, as the illustration depicts, a particularly free flowering plant. The foliage is intermediate between that of the parents, and has the same glaucous hue common to *S. Burseriana* when in vigorous health. The flowers are borne three or four in a head, while the stems supporting them are tinged with red. An especially pleasing feature exhibited by these flowers is the slight waving undulation in the petals, breaking the regular formality common to many of the Saxifrage flowers. A compost of gritty, sandy loam suits the plant admirably in any perfectly drained

of bloom. (2) Pruning proper, which means the necessary shortening of all shoots and their attendant laterals which now remain on the thinned-out Rose tree. (3) Disbudding, which is a subsequent operation and yet an adjunct to the first two. The removal of all buds, whether floral or leaf, which tend, in the case of laterals, to crowd the centre of the tree; and in the case of the floral, to damage the size and symmetry of the central (usually) floral bud.

The inexperienced amateur makes many blunders in pruning his Roses. Even with a handbook to guide him and the valuable articles on pruning that have already appeared in THE GARDEN, a vigorous variety, which may demand a certain type of pruning in his garden, may only require such pruning *modified* in the garden of his neighbour. Perhaps, taking the same variety, the one in his garden may have a more congenial home and, consequently, is in a more healthy and vigorous condition; while that of his unhappy neighbour,

NOTES FROM MYDDELTON HOUSE GARDEN

By E. A. BOWLES, M.A., F.L.S.

THE garden has had a severe snubbing for its forwardness, in three snowy nights. Fortunately, the first night's snow thawed rapidly the following day, and so there was but little left on Cedars and Cypressess when the next 5 inches fell, and though everything was bowed down, very little was broken. It is rather a fascinating job to go round the garden, as soon as the fall has ended, and to try what gentle shaking, or probing and tapping with a cane, will do to liberate some of the evergreens that would be bent out of shape if left for any length of time with such a weight on them. But one has to be very gentle and patient with many, or it is easy to do more harm than good. This is especially true of *Helianthemum* and *Cistus*, *Rosemary* and *Olearia stellulata*, which snap off if handled roughly. Bays, Irish Yews, *Phillyreas* and *Arbutuses* should certainly be freed as soon as possible, or they may be difficult to get back into shape. A wooden haymaker's rake is about the best weapon to use, and the bent boughs should be tapped gently on the under side and then raised by degrees as the snow showers off. You must expect to get a good dose of it on your own head and back, though, if you do your work thoroughly. Buttoned up tightly in an old coat, and with the oldest possible hat on your head, this douche is rather pleasant if the snow is fairly dry. I even seize the stems of some of the more precious shrubs with my hand, and so shake them without any chance of bruising them, and then, when they are free of snow, I emerge from the avalanche and shake myself.

As weeding was impossible for many days I turned my attention to making drawings of some of the rarer Snowdrops I had not figured before or had drawn from specimens less vigorous and beautiful than I now possess. It was delightful to watch the revival of these, from flabby, fainting, sapless invalids to sturdy, upstanding specimens of health and beauty. The Snowdrop does not suffer from frost unless bruised, but lies down on the ground, the sap, in some as yet undiscovered manner, returning into the underground portion. With the return of warmth the sap reascends and the whole plant stiffens up unharmed, except perhaps for a dirty face until the next shower washes it. I grubbed under the snow, dug up the specimens needed, brought them indoors, washed them in cold water, placed them in vases filled with tepid water, and stood them where they could just feel the heat of the fire. In half an hour each had arranged itself in a natural position, and with half-expanded flowers looked pleasant enough to please any photographer. What a superiority and lack of self-consciousness a flower shows as compared with a human being when posing for its portrait! But even Snowdrops, though less sensitive to warmth than a *Crocus*, are not very good sitters, and, like children, they cannot keep still for long. So it requires a good deal of manoeuvring in shading off the fire's heat, and in some cases a reserve bloom outside on the window-sill, to arrange a group in all stages from closed bud to fully expanded flower.

The form that has pleased me most is one of the late Mr. Allen's seedlings, which he named

Galatea, and he wrote of it: "This is one of the giants of the family as to size of bloom, but not in stature. I have never been able to decide whether this or *Charmer* is the more perfect flower." When I first saw it I rather wondered at such high praise, but this season *Galatea* is so fine, taller than usual with me, and has spread from one bulb to a picturesque group, that I, too, think it must be ranked as one of the

finest. The flowers are of great length, and yet so beautifully proportioned that they do not appear to be lanky, as do some of the longest forms of *Imperati* and *caucasicus*. Another good point in its favour is the narrowness of its leaves. They stand up fairly straight, with just enough curve to be graceful, and are beautifully glaucous on their under sides, as *Snowdrop* leaves should be, to my taste. Mr. Allen places it among the forms of *Galanthus nivalis* in his wonderfully interesting paper on Snowdrops, to be found in the Royal Horticultural Society's Journal of August, 1891, but he does not say what forms were its parents. Some Eastern form, such as *caucasicus* or *plicatus*, seems to be represented, as a strong bulb will give two flowers from the one pair of leaves.

Anyway, thanks to Mr. Allen, we have in *Galatea* a very lovely flower, in full beauty later than most other *nivalis* forms, which, again, points to *caucasicus* blood. I have not seen the form he calls *Charmer*, and wonder whether it still exists. Many of his beautiful seedlings have, I fear, quite died out; but I hope *Charmer*, lovely *Galatea*'s rival, may linger still in some old-world garden, and so some day I may see it. I have one of his double forms which he called

Charmer flore pleno, but do not greatly admire it. When it is at its best, it has only three outer segments, as in a single *Snowdrop*, and the inner segments are arranged very regularly, as in a small *Rose*; but it is a stiff little bit of goods. Several kinds of *Snowdrops* are not fully out yet, so, unless anything peculiar happens to the weather, this season will have been one of the longest and best for them. *G. Olgæ* came into flower in late October, *Rachelæ* followed, and *byzantinus* was out before the last flowers of *Olgæ* were shabby, and is still making a good show with its secondary blooms, though many of the earlier ones are now half-grown seed-pods.

Galanthus Fosteri is another that for the first time looked strong enough and in sufficiently



ALLEN'S SEEDLING SNOWDROP GALATEA.
From a drawing by E. A. Bowles.

good form to warrant its sitting for its portrait. Even now I am not at all satisfied that it is looking its best, for if it can be no better than this it does not deserve the title Max Leichtlin gave it of the "King of Snowdrops." Mr. Allen wrote that it was the most sportive of all as to size, form and marking, some showing points of great beauty and others quite the reverse. Do any of the really beautiful forms exist and grow well anywhere in England? If so, I should be very grateful if a kind and fortunate owner of such treasures would send me a specimen in full beauty for figuring.

The plant has interested me greatly when examined at close quarters. It has the most waxy, thick and solid flower of any Snowdrop I have handled. Again, the whole plant emits a strong and unpleasant scent, especially from the leaves—much the same poisonous odour as that of the leaves of *Daphne Laureola* or some Ivies. There is no need to bruise the leaves to get a strong whiff of it; it is given off freely without injury to the tissues. I have tried other

the issue of February 5, he very kindly wrote to tell me that he recognised in it the Snowdrop that does so well in his garden at Nice, and that though purchased as *G. Fosteri*, it is evidently byzantinus. I hope someone who grows *Fosteri* well will say a good word for it, for between us we seem to be taking away its good character.

DAFFODIL NOTES

BY THE REV. JOSEPH JACOB.

New Zealand Shows, 1915.—Through the kindness of several correspondents and through the courtesy of the Editor, who has sent me a detailed report of the Auckland Show (September 8 and 9) from Mr. A. E. Grindrod, together with some photographs of flowers exhibited there, I am in a position to offer a few general remarks on the 1915 exhibitions in New Zealand. Reports from Auckland in the extreme North and Dunedin

again. In publishing a picture of the Professor's Seedling 114/1, I must confine myself to saying it looks good, and it may be my correspondent will recognise it as one of the three or four specially good ones. Among the successful exhibitors were Professor Thomas, Messrs. Selwyn Upton, H. B. J. Ball, A. E. Grindrod, R. Gibson, H. E. Sharp, H. A. Marriner and James Hall. There were two Daffodil classes for the schools of the district and for affiliated societies. New Lynn School and the Pukekohe Spring Flower Show Society were the first prize winners in their respective classes. An idea which we Daffodil people, along with our Sweet Pea brethren, might think about is suggested by an exhibit of winter-flowering Sweet Peas by Mr. Henry Brett.

The Hutt Show took place on September 15. I almost think I might compare this to our own Cornwall Show, with the rôles of "J. C." and "P. D." filled by Robert Gibson. Here he is, as it were, "at home," the "cock" exhibitor of New Zealand on his own "dunghill," to put my meaning in expressive and appropriate language. His thirty blooms which won him the Barr Cup outright were, as a third little bird put it, "rather a hot lot for a Colonial show." In fact, one report says: "The best blooms that have ever been staged in the Dominion. They would have opened your eyes." I can truthfully say they did. This is the list: Giraffe, Fleetwing, Robert Sydenham, Weardale, Clandon, Golden Rose, Longfellow, Michael, Apricot Phoenix, Bernardino, Buttercup, Sirdar, Uncle Robert, Lemon Queen, Sunrise, King Cup, Gannet, Peter Barr, White Slave, Diana, Neptune, Crystal Queen, Primrose Queen, Lord Kitchener, Zoe, Venus, White Queen, Florence Pearson, Solfatare and Macebearer. Special mention must be made of a couple of vases of the lovely Conqueror, staged by Mr. Booth in two of his exhibits. At this show, on the top of the back of the staging there is always a row of Palms and Dracænas, which breaks up the stiff monotony of the straight lines such as we are accustomed to in England. Among the prize winners mention must also be made of Messrs. H. Poole, F. Cooper and C. B. Trimnell; while for the best trumpet seedling raised in New Zealand Mr. R. N. Wall was first and Mr. S. Knight second, and for any other variety Mr. A. J. Hobbs was the prize winner.

Of the Canterbury Daffodil Society's Show I am sorry I have no accounts. I can only imagine that the Postmaster-General was to the front as usual, for I have not heard of anything happening to his faithful henchman, Mr. A. E. Lowe.

So after Hutt, Oamaru (September 23). Here, as a newspaper report says, came the redoubtable Robert Gibson, seeking, like Alexander of old, new worlds to conquer. His fifty staged in competition for the Duart Cup were "immense." Empire, The Fawn, Hon. Mrs. Francklin, Conqueror, Cræsus, Peter Barr, Florence Pearson, Whitewell, Robespierre, Michael Angelo, Hypatia, Czarina, Much the Miller and Neptune are a sample of his quality. Again I have another little bird messenger to quote. This one tells me that our friend "Alexander" had better make hay while the sun shines, as a certain husband and wife who live not many miles from the metropolis of North Otago are getting together a collection that will outstrip any in the Dominion. "When old Mac gets properly going," then obviously everyone far and near must look to his laurels. Mrs. John Maclean's exhibits on this occasion were perhaps shadows of coming events, and not bad



DAFFODILS OF NEW ZEALAND.

Left: Professor Thomas' Trumpet Seedling No. 114/1. Right: Mr. J. Hall's Banzai.

Snowdrops' leaves, and can find none that possesses this unpleasant character; but the leaves of some *Leucojums* have it strongly.

It has been suggested that *G. Fosteri* is a hybrid of *Elwesii* and *latifolius*, having the flower of the former and the leaves somewhat like the latter, so, of course, I have tried leaves of *latifolius*, but my nose can trace no evil scent in them even when bruised. *G. Fosteri* also has the shortest pedicel of any Snowdrop, so that the ovary is brought almost to the base of the split in the spathes, and the flower does not hang so gracefully or completely as in others, but stands out almost at a right angle in some specimens. This may not be a constant character, though all my forms have it, for Mr. Baker describes the pedicel as $1\frac{1}{2}$ inches long. So I cannot help thinking that I have only the uglier forms, base usurpers of the Snowdrop throne.

I have been hoping to see some more of Mr. Woodall's most interesting notes from Nice, but as they have not appeared up to the time of writing, I will say here that after seeing the sketch of *Galanthus byzantinus* in

in the South seem to indicate that the season was rather earlier than usual. At Auckland, particularly, it resulted in the same topsy-turvydom of yellow trumpets and Poets to which we are accustomed in England when Spring is in advance of her time. Here at least two of the usual exhibitors were absent—one, Colonel Plugge, fighting in Gallipoli, and the other, Lieutenant Kirker, in camp at home getting ready for the Front. As a set-off Professor Thomas was back again from his European tour and, as is his wont, proved a tough customer to tackle in the various classes in which he exhibited. He won outright the society's cup for forty varieties, and in his collection put up twenty-four of his own raising, quite à la Wilson, Crosfield, Williams and Company with us. These were, however, rather a mixed lot. Three or four under numbers were very good, but a few were hardly up to exhibition form, so an "old bird" tells me. Photographs are deceptive things. I have only once "let myself go" and enthused from a photograph, and the result was—I am never going to do it

shadows either—Lord Roberts, Homespun, Killiecrankie, Southern Queen, The Fawn, Bernardino and Marshlight. Ten entries and, as the showman says, nearly “every time a Cokernut”—only two misses; while coming along in the garden are Whelp, Mogador, Cingalee, White Emperor and such like.

Dunedin (September 25) is the St. Leger of the classic shows in New Zealand. Here my friend “Alexander” journeyed to have a peep. It was the end of his strenuous month, but I think he was glad he went. Mr. E. A. Hamel was the hero of the show, winning the Champion Cup with a capital fifty, included in which were Horace, Marigold, Hon. Mrs. Francklin, White Nectarine, Miss Mary, Incognita, Great Warley, Lord Roberts and Bernardino. Mrs. J. Maclean had fine incomparables, viz., Lady Moore, Marshlight, Homespun, Home Truth, Southern Queen and Bernardino. Mr. Hart of Lawrence had some interesting seedlings. I am told they would have been doubly so had the Postmaster-General’s (Mr. Rhodes) been there also for comparison. It seems a pity that tiered staging is not used at this show. I cannot easily imagine one of our large shows with all the blooms on the flat.

I hope this short summary will interest many of us at home. In future numbers I will try to interest our very good friends there (New Zealand) in what is taking place this season here.

FORCING SEAKALE AND RHUBARB

THESE plants may be forced in two different ways. The first is by lifting the roots and placing them in a warm, dark chamber; the second, by placing coverings over them in their permanent quarters. In regard to Seakale, the first method finds most favour in gardens with sufficient convenience, but it is first essential to have strong, well-matured

crowns. For late supplies of Seakale the method of forcing the plants on permanent beds is best, owing to the convenience of covering. The plants are usually grown in clumps of three or five, and if, at the time of planting, the ground is trenched and well manured, the beds will last for several years. By the time these notes appear, the forcing of Seakale indoors will be practically over, and the grower will be busy preparing the cuttings for making another plantation, which may be done as early in spring as the weather will permit. The cuttings are made from the strongest portions of the roots saved when digging up the crowns for forcing. The roots are cut into lengths of

about 6 inches and tied in bundles of fifty. These are placed upright in boxes and covered with fine soil. By planting-time the cut surface of the cuttings will have callused over and be on the point of breaking into growth. Plant them in rows about 2 feet apart, leaving a space of 1 foot between the plants. The cuttings may be planted with an ordinary dibber, and must be slightly covered with soil. In forcing Seakale outdoors, the crowns must not be covered up till they show signs of growth. They will then make rapid and regular progress. When the heads have been cut, the coverings may be removed and replaced with short litter for a few days.

Only one growth must be allowed to develop on each plant. Ivory White is the variety which finds most favour with growers of Seakale.

There is no difficulty in keeping up a supply of Rhubarb from Christmas onward. For the earliest supplies the roots must be lifted and placed in a warm, dark chamber. Cover the roots with ordinary garden soil and thoroughly soak it with lukewarm water. For later supplies the roots may be covered with barrels or boxes, around which must be placed a quantity of stable litter. New plantations of Rhubarb must be made from time to time in order to keep up a supply of roots for forcing. The present is the most suitable time to do this work. As the plants will occupy the ground for several years, it must be deeply trenched and heavily manured. The old stools must be lifted and carefully divided. They require ample space in which to grow; 6 feet each way will not be too much. When planted, place a mulch of short litter over the soil. Varieties which may be relied upon are Daw’s Champion (a good early variety), Champagne and The Sutton.

Lockinge.

E. HARRISS.



EARLY SEAKALE FORCED INDOORS.



RHUBARB FORCED IN THE OPEN UNDER A BARREL.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Peaches and Nectarines for Succession.—When disbudding, remove all the ill-placed shoots entirely and leave a shoot at the base of the fruiting wood. Overcrowding must be avoided. Where the fruits have set freely, thinning should also begin. Maintain a moist atmosphere, and close the house fairly early to economise fire-heat. A night temperature of 50° to 55° will suffice. The later houses, where ripe fruit may be expected in August and early September, should be closed forthwith, but at present no fire-heat will be needed.

Plants Under Glass.

Tuberous-Rooted Begonias.—The remainder of these ought now to be started, and the earlier batch may be potted into 5-inch or 6-inch receptacles, according to the size of the tubers. Good drainage is essential, and the rooting medium should consist of good fibrous loam, leaf-mould, decayed manure and a sprinkling of sand. Pot moderately firm, and keep the crown of the tuber just above the soil. Seedlings should be pricked off and potted on as the necessity arises.

Gloxinias.—These must be placed in warmth, and those started earlier potted up. Use the same kind of soil as advised for Begonias, and grow both in a warm house close to the roof glass.

The Kitchen Garden.

Tomatoes.—If not already done, a sowing of a suitable kind should be made to provide plants for planting outside, selecting a sunny situation. Place the pan or box in a warm house and keep the young plants near the glass. Pot off singly when large enough and harden off gradually.

Carrots.—Make a sowing of one of the early stump-rooted varieties on a warm border. A light, warm soil will ensure success.

Potatoes.—A further planting of Sharpe's Express, Early Ashleaf or May Queen may be made, and the ground for the main crop prepared.

Peas and Broad Beans.—Where these have been raised in pots or boxes they should be prepared for the open ground. Directly they are thoroughly hardened off they may be transferred to their permanent quarters.

The Flower Garden.

Hardy Annuals.—In most gardens there are a few vacant spaces, such as in the herbaceous borders, fronts of shrubberies, &c., where a group of annuals would prove very effective; while large beds and borders are devoted to these charming plants in many establishments. The ground should be dug deeply and given a liberal dressing of rotted manure. Select a fine day for sowing, and the soil should be in a friable condition. Sow thinly, and when large enough remove all superfluous plants, so as to allow each one ample room for development. A few annuals often selected for this purpose embrace Clarkia, Godetia, Larkspur, Cornflower, Mimulus, Diascia Barberæ, Poppies, Candytuft, Mignonette and a host of others which can be chosen from any well-known nurseryman's catalogue.

The Hardy Fruit Garden.

Strawberries.—The beds will need attention at this period, and frequent hoeing when the surface is dry. Remove all dead foliage and give a dressing of soot and a mulching of manure. This will help to keep the soil moist, as Strawberries are never a success if they are subjected to periods of drought.

Insect Pests.—Examine Gooseberries and other bush fruit for caterpillars and green fly. A spraying with some insecticide will destroy the latter, and perhaps the former. If not, the bushes should be gone over and the pests destroyed between the thumb and finger.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Gas Lime.—Take advantage of a frosty morning, when the walks and ground are dry and clean, to wheel on some gas lime to the quarters that have been dug or trenched, giving them a light, even dressing, especially where it is intended to grow the bulk of the Brassicas. Should this substance not be available, a dressing of lime in some other form should be applied on the surface when the ground is still in a rough state, as there are few instances in which lime is not beneficial to garden crops and plant life in general. Small doses given annually have better results than large quantities applied at longer intervals.

Planting.—Brussels Sprouts, Cabbages and Savoys from August sowings may now be planted out. Cauliflowers also that have wintered in frames will be ready for moving, and should be given a warm, sheltered border facing the sun. They must also receive some protection from cold winds by means of Spruce branches placed between the rows.

Sowing Seeds.—Besides sowing successional batches of Peas, Beans, Turnips, Spinach, &c., recommended some time ago, the sowing of Carrots should be no longer delayed if the ground is in good condition. A few days previous to sowing these, if trouble has hitherto been experienced with Carrot fly, the ground should receive a dressing of a soil insecticide, such as Clift's Fluid, applying it according to directions sent with it.

Cauliflowers.—To keep up a continuous succession of these for cutting during the summer and autumn, several sowings should be made between now and the beginning of May.

Lettuce.—A sowing of this should also be made fortnightly.

Celery Trenches.—As soon as all the other digging has been completed, the Celery trenches should be prepared, so that a crop of Lettuce or other quick-maturing crop can be grown on the ridges before these are required for earthing-up.

The Hardy Fruit Garden.

Spraying for American Gooseberry Mildew.—Where this new pest has become established, besides carrying out the injunctions of the Board of Agriculture by removing and burning all affected tips in autumn, it is further recommended to spray during the growing season, commencing about this time. The lime-sulphur preparation is the best preventive I have hitherto used as a spring and summer application, as when applied with a fine sprayer it adheres to the leaves for a considerable time. There are some varieties, however, that do not stand spraying so well as others, so that a weaker solution than that recommended by the manufacturers is advisable. Currants, both Black and Red, are also liable to attack, but not so readily as Gooseberries, so that these should be sprayed as well. It is wiser to spray as a prevention than to wait till the mildew has made its appearance.

Protection of Fruit Blossom.—Careful attention should be given to the protection of the opening fruit blossoms whenever there is danger of frost. Early varieties of Cherries will soon be in flower, and are often damaged by frost or storms of sleet. Ample protection will be found in a double thickness of old herring-net.

The Flower Garden.

Carnations.—The autumn-planted layers should now be examined and all blanks made good from the reserve stock. It will be found that many of the young plants have become lifted and slackened by the frost. These should be gently firmed down again, all weeds removed, and the beds given a top-dressing of fine loam, in which may be a proportion of soot and wood-ashes. The beds filled with spring-flowering subjects should be examined and the surface stirred with a small hoe. Hyacinths and Tulips will now be showing their flower-spikes, and these should receive some support. The Hyacinths at least require staking, otherwise the effect will be spoiled if rough winds prevail, breaking down the blooms.

Ivy.—The clipping of Ivy may be proceeded with on days when it is too moist for working on the soil. Clip as closely as possible. Pieces that have lost their hold of the wall should be cut out altogether. It is better to do this than attempt to fasten them up again, as they will never take a fresh hold, and young growth will soon fill up all vacancies.

Pentstemons.—These and other cuttings that have wintered in cold frames may now require to be moved to make room for more tender subjects, and as it is rather early to plant them out in the beds, they may be transplanted outside in thin nursery lines where a little protection can be given.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

PARSLEY AT ALL SEASONS

NO other herb is so constantly in demand as Parsley, and in many gardens the daily supply is not always easy to maintain. With a little trouble and forethought, however, there is a possibility of picking fresh leaves every day of the year, should that be necessary. In some gardens, of course, there is difficulty in getting this plant to thrive, but by digging into the soil a plentiful supply of leaf-mould, I am convinced that failures would vanish. It is well also to rake into the surface a fair dressing of dry wood-ashes or soot before sowing or planting.

To provide leaves of the finest quality for summer and autumn use, seed should be sown in a pot or box during the first half of February. Place in a gentle warmth, and prick off into other boxes of good soil as soon as the seedlings are large enough to handle. Grow on carefully for several weeks in a heated greenhouse or pit, and then remove to a cold frame and gradually harden off, planting out early in May. Deeply dug and fairly enriched soil is a necessity, and if there is any fear of the plants failing in the natural soil, do not forget the leaf-mould. Allow from 9 inches to 12 inches between the plants, and should dry weather set in, give an occasional watering to encourage steady growth. The best results, as a rule, are obtained by planting in isolated rows. The edge of an alley near the winter vegetables is an admirable position for this crop, and in wet weather the picking can be accomplished in comfort and without treading on the soil.

For early winter supplies sow outdoors in April, well thinning out when the plants are quite small. Make another small sowing in June, and prick off into a frame early in August. Give abundance of air on all occasions, or, better still, entirely remove the sashes until severe frost sets in. Probably the most difficult season of the whole year in which to keep up the supply is April and May. Where room under glass is plentiful, a number of roots could be potted or boxed at this season. Handlights should also be set over part of the plants that have stood outside through the winter. Before placing on the lights, cut away decaying leaves, pull out weeds, and lightly fork in round the plants a dusting of some good artificial fertiliser. If these little details are faithfully carried out, a constant supply is assured.

There are numerous fine stocks of Parsley on the market, one of the hardiest and best curled varieties being Dickson's Triple-curved, while a good strain of the old Myatt's Garnishing is not to be despised.

Preston House Gardens, Linkithgow. C. BLAIR.

THE GARDEN.

No. 2314.—VOL. LXXX.

MARCH 25, 1916.

NOTES OF THE WEEK

Do Plants Die from Old Age?—A very interesting point is raised in Mr. A. Bruce Jackson's observations on the Lombardy Poplar (issue March 11, page 124) when he says, "This tree does not attain to such a large size as formerly, and is said to be dying out in Germany." This, he continues, "is possibly owing to the fact that all the trees since the first sport have been raised by cuttings, and that these may now be dying from old age." There are many trees and herbaceous plants which are never reproduced by seed; but surely they are not all dying out. The common Elm, a denizen of our woods, is never reproduced from seed in this country, and the common yellow Crocus, which comes up vigorously year after year, has never in the history of man been known to produce seeds.

A New Hardy Primula.—At the Royal Horticultural Society's meeting on March 14 and 15, Messrs. Waterer, Sons and Crisp exhibited a plant of a new hardy Primula under the name of Crispii. The flowers are richer in colour than those of P. Julia and quite twice the size. It will be interesting to know the origin of the plant. P. Julia is undoubtedly one of the parents, and from the habit P. Winteri might well be the other.

Mrs. Siddons and Pansies.—The likes and dislikes of the famous people of the world are a perennial source of interest to their more ordinary fellows. The celebrated Mrs. Siddons had a special liking for a particular variety of purple Pansy, Viola amoena, or common purple Heart's-ease. This she had planted in masses in the borders of her sombre and sable garden of evergreens in the Harrow Road. "Her great and constant call for this flower every spring to keep the purple bordering complete and perfect induced the gardeners in the neighbourhood to give the name of Miss Heart's-ease to her managing handmaid who used to chaffer for it in the true spirit of hard and thrifty dealing." The great actress saw beauty in masses, and had the means to carry out her whim.

A Climber with Ornamental Fruits.—Celastrus articulatus, a scandent shrub native of China and Japan, retained its attractive fruits later than usual this year. In February they were still

hanging on the long, slender branches. The Celastrus is closely allied to the Euonymuses or Spindle Trees, and, like them, has an ornamental fruit which, when ripe, opens, disclosing richly coloured seeds. The colour of the fruits is yellow, and the seeds orange scarlet. The long, slender branches may be supported by rough poles, such as one uses for rambling Roses and Clematises. They may be trained over arbours or allowed to climb at will among the branches of trees, where they will attain a height of 20 feet to 25 feet or more. In summer, though the flowers are small and inconspicuous, the ovate leaves are ornamental,

February, when the subject of this note was at its best, the weather was mild and very favourable for the blossoms. The colour of the flowers is very similar, that of the early flowering variety being possibly a shade lighter. The flowers are seen to advantage with dark evergreens in the background.

Veronica Hulkeana.—This beautiful flowering shrub, with its pale mauve flowers, is not very frequently seen in a thriving condition. The one under notice was planted four years ago on the edge of a rock garden facing north-west, where it has thorough good drainage and is protected from heavy south-east rains by large conifers. Others planted more in the open have not flourished to the same extent. The illustration is from a photograph taken by Mrs. Frank Harding in her garden, St. Germans House, Exeter.

New Introductions from China.

Over one hundred trees, shrubs and herbaceous plants introduced from China by Mr. E. H. Wilson have been given first-class certificates or awards of merit by the Royal Horticultural Society. This is a remarkable record of Mr. Wilson's success as a plant collector. As there are still many of his introductions which have not yet reached the flowering stage, this number is sure to be considerably augmented in the near future. It is safe to say that both in quality and quantity of new introductions, Mr. Wilson has surpassed the achievement of any previous plant collector.

Mendelism Up to Date.—Long ago we were told that the limitations of the hybridist were largely due to neglect of the facts of Mendelism, and we were recommended to begin again on

correct lines. But if "a large part of the Mendelism that is current at present is in some way out of date," how shall we find the real thing, and, when found, how will it help us? Mendelism has never yet answered the question as to how the hybridist is to separate the qualities he is in search of from the undesirable qualities that are also present in the plants that he perforce must work with, and the discovery that the visible characters are due to the co-operation of an indefinitely large number of unseen factors does not increase the probability that Mendelism is likely to be of any practicable help.—From the *Orchid Review*.



VERONICA HULKEANA IN A READER'S GARDEN AT EXETER.

turning to a rich clear yellow in autumn before they fall.

A Valuable Early Flowering Almond.—The common Almond, Prunus Amygdalus or Amygdalus communis, is a well-known early flowering tree and one freely planted in some suburbs of London. The variety præcox, or persicoides as it is sometimes named, is an early flowering form of considerable value. It flowers nearly a month in advance of the common Almond, and, curiously enough, escaped the snow and sharp frosts which have recently done considerable harm to the common Almond trees now in flower. During

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Mr. Beckett's "Large Onion."—Really, I am not *quite* so silly as to suggest that a large Onion cannot be cooked on a small stove; but my household has not yet advanced so far in the "simple life" as to enjoy boiled Onions alone, but remains faithful to the famous "swarry" menu and regards boiled Onions as one of the "trimmings" of boiled mutton (or beef), and expects the others also—to wit, Turnips or Carrots, Potatoes, Kentish dumplings, Cabbage and (with the mutton) caper sauce. It requires "some" management to cook all these on my kitchen stove (4 feet wide). One or two "large Onions" are not enough for eight persons, but sufficient smaller ones can be cooked (more quickly, too) in a smaller saucepan.—ANNE AMATEUR.

A Proposed Tax on Foreign Bulbs.—As a mere hobby grower I am certainly in sympathy with the suggestion, for it is all too obvious that

is that while the Government has, and still is, calling upon all the available man power of this country, Dutchmen are now coming over here filling the vacant places; and if, as I fear, some of the affected nurserymen are forced to close down, more Dutchmen, I assume, will be coming to snap up these businesses going for a mere song, so that after the war we shall find another incubus upon us. America makes a point of taxing all bulbs, while allowing most seeds in free. Let us do the same. America, by the way, has proved that good bulbs, including Hyacinths, can be grown in certain parts of the country, and when once the industry is established, I venture to hazard that the duties on imported stock will greatly increase.—T. A. W.

An Excellent Maincrop Lettuce.—A variety of Lettuce we have grown for two or three seasons fully entitled to the above description is one called Eckford's Wonderful. It attains a very large size if well treated, yet is tender and of excellent flavour. Of the Cabbage type, it possesses a firm heart and is not inclined to "bolt" Being a large-growing sort, it is of necessity longer

in coming to maturity, but, having reached that stage, one can rely on the quantity and quality of its yield.—C. TURNER, Highgate.

Lenten Roses as Cut Flowers.—You do well to praise Lenten Roses in your "Notes of the Week," issue March 11. They are beautiful, will grow in the dampest and gloomiest north border, and mind nothing in the shape of bad weather. But I cannot agree that they are "very valuable to cut for indoor decoration." Bring them into any ordinarily warm room, and they become limp, ugly, floppy things; take them into a cool place, they revive; bring them back, they flop again. I have tried soaking them all night

up to their chins in hot water, cold (salt in it), ammonia, smashing the stalks, burning them, &c. Nothing answers, so I have to leave them in the garden, where I never see them! Can anyone suggest a remedy, as I have never yet been beaten by any flower?—A. LA T.

Apple Van Mons Reinette.—Will any reader be good enough to furnish information where the Apple Van Mons Reinette can be purchased, and whether it is most adaptable for bush, pyramid or standard trees? It is an old dessert variety, beautifully flavoured and keeps well.—E. D., Kent.

Exhibition Vegetables v. Utility.—Mr. Beckett scores a point when he ascertains from his friend in the trade that the largest vegetables command the highest price, though I have sufficient respect for his taste to believe that he does *not* prefer a large Beetroot (the final item in the greengrocer's list) for his own table. As to the Capsicums which I have exhibited before the Royal Horticultural Society's fruit and vegetable committee, it is true that I have been endeavouring to increase the size of the Capsicum, and for this reason—the

larger the Capsicum, the milder its flavour; and my aim has been to get a fruit with the true Capsicum flavour (which is distinct and piquant) but without its extreme heat. In this I consider I have to some extent succeeded, but I fear that the fruit and vegetable committee do not appreciate the fact, for, although they will usually devour with gusto the fine Peaches, Nectarines and such like placed before them, I have noticed, with some sadness, that my Capsicums have usually been sent away intact.—F. HERBERT CHAPMAN.

Firming the Soil after Seed-Sowing.—"Anne Amateur," when telling us in her own inimitable manner how she proposes to beautify the old orchard, finishes with: "and finally, with stately elephantine tread" [this I refuse to believe; I imagine "Anne Amateur" to be cast in a dainty mould, for no ponderous person could have her light ideas], "I press the earth smooth and firm." Now, I know full well that this firming of the soil after seeds have been sown has the sanction of long custom. Our grandfathers rolled and patted and smoothed the surface of their Onion beds with infinite patience, fully convinced that "black seeds" would not germinate otherwise. The indoor gardener of to-day cherishes his little wooden patter, which, with artistic flourish, he presses the covering layer of soil after he has sown even such fine seeds as those of Begonia or Gloxinia, though seeds of Orchids are nearly always sown on coarser soil and permitted to rest unpatted. Greatly daring, I have oft-times enquired the reason for making the soil so firm and smooth over most seeds, and the general answer, given with mingled suspicion and pity, was: "Oh, we always do. It makes the soil nice and firm!" A not altogether satisfactory answer, though when I considered the practice I realised that this is about all that can be said in its favour. On the other hand, there is a deal to be said against it. With many soils the smooth, level seed-bed effectually prevents water, either rain or from the watering-pot, from evenly moistening the surface soil—just where it is, at the time, most needed. The patted soil soon hardens and cracks, thus giving the tiny seedlings an unnecessary strain when coming into the world, and this hard soil is far from being the ideal for them. Also, when hoeing between the rows of outdoor seedlings, the surface soil often lifts up in flakes and exposes the delicate young roots to the drying influences of the sun and air. Long ago I decided that seedlings under the patting and smoothing régime lived in spite of it, and not because of it, and now I always leave the surface soil loose. I am a great believer in firm soil for the majority of plants to root in—plants should work for their livings, and those which obtain their food too easily soon develop ills which plant life is not heir to—and all successful cultivators agree that the surface soil should be kept loose and easily penetrated by air and water; so if a loose surface is necessary for the adult plants, how much more so for the tender seedlings. But the soil below the seedlings should be made firm before the drills are drawn.—CECIL BARTLETT.

FORTHCOMING EVENTS.

March 28.—Royal Horticultural Society's Meeting and Exhibition, 1 p.m. to 5 p.m. Royal Horticultural Hall, Vincent Square, Westminster.

March 29.—Perpetual-Flowering Carnation Society's Show at the Royal Horticultural Hall, Vincent Square, Westminster.



CABBAGE LETTUCE ECKFORD'S WONDERFUL, A RELIABLE MAINCROP VARIETY.

the Holland growers as a class are deliberately going out of their way to cut up the trade, not only in bulbs, but of many things in the way of nursery stock. Allowing for the higher cost of labour, both as regards the individual pay and the increased number of workers needed to work our heavier soils, it certainly is not possible for our home growers to stand up against the competition. The war further aggravates the matter, inasmuch that whereas our home growers and nurserymen generally are now almost on their beam ends regarding the labour question, their rivals, little hampered by the war and benefited not a little by the general conditions of trade in neutral States, are able to put more energy into their work. Of course, we have read the whining appeals of certain people, but the fact remains that the Dutch trade as a whole has done pretty well, more so because, owing to the great shortage of Gladioli in America, the latter country has found it necessary to import heavily, resulting in increased prices all round. Perhaps the most obnoxious "fly in the ointment"

THE NATIONAL ROSE SOCIETY'S ANNUAL, 1916

ALTHOUGH belated, the Rose Annual for 1916 will, I think, meet with a cordial welcome from the majority of its readers. Some, no doubt, would rather it had been clothed in a less garish garb; others will find fault with the new shape of the volume—certainly not so convenient to handle, and one which, perhaps, spoils the symmetry of the set already on one's bookshelf. But, after all, these are small matters, and as the small boy said of the egg, "It's the inside that counts," and on its contents the general verdict will be "quite satisfactory." The publication committee of the National Rose Society is indeed to be congratulated on being able to turn out such a volume at such a time. Its distinctive feature as compared with former Annuals is undoubtedly the prominence given to Roses and Rose culture in other climes than our own, as evidenced by articles from Rose growers in the United States, New Zealand, Hong Kong and Australia; so much so that one wonders whether these may not well foreshadow the beginning of that new epoch when the society will become "International" instead of "National." That, I venture to think, will one day be achieved, though not just yet.

To turn to the book itself. A short preface by the Editor calls attention to the fact that special articles were asked for dealing with (1) Rose growing in different parts of the Empire; (2) on matters likely to assist beginners in Rose culture.

To turn to the two special features. I presume the excellent article on "Rose Culture in Oregon, U.S.A.," comes under the first item above, although we have not annexed Oregon. Perhaps the Editor would like to do so! It will, I think, be something of a revelation to most of the members of the National Rose Society as to what can be done in the way of municipal gardening, and the fact that over

3,000,000 plants of Rose Caroline Testout (used as hedges) are grown in that one city will certainly come as a surprise. Messrs. Hugh Dickson of Belfast evidently had an excellent reason for naming one of their new seedlings Souvenir de Portland, Oregon.

The second symposium contained in the Annual, on "Matters likely to assist beginners in Rose culture," leads off with a thoroughly practical article by the Deputy President, Mr. E. J. Holland, on that very important subject of pruning. The sound principles laid down are easily followed and, if carried out, cannot but lead to success. He refers to the old controversy knife *v.* secateurs, solved by most of us by a judicious use of both, and he concludes by emphasising the fact that no amount of verbal description or direction can equal ocular demonstration, which, if possible, should be obtained *in situ*. Where this is not possible, the society has now had prepared an excellent series of slides demonstrating the successive stages—(a) before pruning, (b) after pruning, (c) the young shoots, (d) the plants in bloom—

that will assuredly be in demand among horticultural societies for the purpose of illustrating lectures.

Mrs. H. R. Darlington has similar notes, written more from the point of view of the grower of decorative garden plants than for the Rose exhibitor, and they contain much wisdom and many hints, conveyed with that light touch that characterises all her writings.

Mr. F. Slaughter's article on "How to Grow Tea Roses" is written by one who knows. No one, having regard to the limited number of plants he grows, has had greater success. He emphasises the fact that no manure, either artificial or liquid (beyond the original mulching), should be given the plants the first year after planting, a fact that I only learnt by bitter experience, my first Rose plants being ruined by "kindness" in the shape of Tonk's Manure. The first year should be devoted to getting the tree established.

Mr. D'Escofet's article on "Roses in Town Gardens for Exhibition" fails in this respect

use of the hoe cannot be too often insisted on. Personally, if I was asked which I would say was of the most benefit to Rose plants (given proper preparation of the soil in the first place)—the continued use of the hoe or the help of artificial manure, properly applied—I should unhesitatingly say, "Give me the hoe!"

Other features of the Annual, apart from its two leading ones, are an excellent article by Mr. B. E. Cant on "Rose Stocks"; a descriptive account of Lord Reading's famous Rose garden at Foxhill, illustrated by excellent photographs; a very suggestive article by Mr. H. Garnett Rolt on the "Arch Enemy"; the article on "Polyantha Pompon Roses," by Mr. Walter Easlea; and Mr. Mawley's "Annual Analysis and the New Seedling Roses of 1915."

I conclude with a notification that this excellent half-a-crown's worth can be purchased by any member of the public from the Secretary of the society at its offices, 25, Victoria Street, Westminster; and by the time these notes appear it



SHORTIA UNIFLORA GRANDIFLORA AND OTHER CHOICE VARIETIES.

in not stating that his manuring is for established plants. His otherwise excellent article reads as if he started to feed his November-planted Roses in December by dressing the ground with 1lb. of basic slag per square yard, following this a month later, namely, in January, with a dressing of 1oz. of sulphate of potash to the square yard; then in May a similar dressing of sulphate of ammonia; afterwards, once a week, a gallon of manure-water and soot per plant; and, as a finishing touch, "a little nitrate of soda will benefit the plant, especially when in a strong and healthy condition."

Now, I am inclined to think the above treatment is overdoing it, even for established plants; for newly planted ones it is forcing them to a degree that only the strongest could stand, and I should expect a short life and a heavy mortality average among plants so treated. I am sure, for beginners at any rate, Mr. Slaughter's advice is to be preferred.

Mr. Woosnam's notes are most helpful, and he thoroughly covers the ground. The constant

will have been sent free to all members of the National Rose Society.

Southampton.

HERBERT E. MOLYNEUX.

A GROUP OF BEAUTIFUL SHORTIAS

THE wonderful display of Shortias shown by Mr. Amos Perry, Enfield, formed a most delightful feature at the last meeting of the Royal Horticultural Society. Never before had we seen such a glorious display of these dainty and beautifully fringed flowers. Two or three varieties were included, but the one most liberally shown was Shortia uniflora grandiflora, which is remarkable for the freedom with which its flowers are borne. Two varieties of grandiflora, viz., rosea and superba, both noticeable for their rich colouring, were also shown. The plants bore evidence of good cultivation, and they were all flowering freely. The varieties are comparatively scarce, which made the collection all the more noteworthy.

MISS LAWRENCE'S ROSES

"A miniature of loveliness, all grace
Summed up and closed in little."

SUCH words might well describe some of the little Fairy or Lawrenceana Roses, so rarely seen to-day. Indeed, after searching through many catalogues—English, French and German—I can only find one which offers any of these little gems, and that one is Irish!

It was pointed out by a correspondent in *THE GARDEN* (issue February 5) that the so-called annual Roses of to-day sometimes, but I think inaccurately, called Fairy Roses are merely seedlings from the Polyantha Pompons. These should not be confounded with the true Fairy Roses, which are varieties of *Rosa indica*, called also *R. Lawrenceana*, after Miss Lawrence, whose exceedingly beautiful book, "A Collection of Roses Engraved and Coloured from Nature," is, unfortunately, even harder to come by than the Roses themselves. The Royal Horticultural Society, more fortunate in this respect than the Linnean Society, possesses a copy, and a pleasant morning may be spent in the Library in Vincent Square studying this beautiful book. It was published in 1799.

The exact date of the introduction of these little Roses into Europe seems uncertain. Some books refer to them as having been brought to England in 1810. This is also the date usually given for the introduction of the Tea-scented Rose. Others mention a date towards the end of the seventeenth century. In his Monograph on Roses, Lindley, writing in 1820, states: "Mr. Sweet introduced it from the Mauritius some years ago, and it may be the *R. pusilla* of the catalogue of the Botanic Garden there. China is probably its native country, as it approaches so very nearly to *R. semperflorens*."

MM. Forney and Jamain write of "Le petit Bengale Lawrence" as introduced by Miss Lawrence from L'Île Bourbon. M. Gravereaux in his "Roseraie de L'Hay" (1902) refers its introduction to "Swelt" (a mistake, no doubt, for Sweet) from China in 1810; whereas in his "Roses of La Malmaison," published in 1912, the date named is 1794. In the list of Roses grown by the Empress Josephine at La Malmaison are mentioned "Miss Lawrence Rose" and "Miss Lawrence Rouge." The former apparently was dedicated to Miss Lawrence, and is, I imagine, identical with the variety called minima. The group has many names, *R. indica Lawrenceana* (Redouté), *R. i. minima* (Curtis), *R. semperflorens minima* (Sims) and, popularly, Fairy Roses. Mr. Rivers in his "Rose Amateur's Guide" devotes a short chapter to "The Miniature Rose." He joins issue with the botanists in making a species of "this curious little Rose," asserting that it is undoubtedly a dwarf seminal variety of the common China Roses, in the same way that De Meaux and Spong are dwarf varieties of *R. centifolia*. Certainly the two plants in our own garden called minima and Miss Lawrence have every appearance of being tiny editions of the China Rose. As I write I have a spray of minima in a vase beside me. It was picked last week after the heavy fall of snow had just melted. The stems are smooth and dark green; so are the very pointed and toothed leaflets. The quite young shoots and the stipules are a pretty coral pink. At the ends of the young shoots tiny, daintily formed

flower-buds are borne singly. Mr. Shirley Hibberd in the "Rose Book" (published in 1864) has a very pleasant and appreciative account of this little group of Roses, which is perhaps not too long to quote:

"*Rosa Lawrenceana*.—No one can doubt that whether the Fairy Rose be a distinct species or not, it is at least sufficiently distinct from all others to require separate classification. All the Roses of this group are adapted only for pot culture, though they have been used out of doors with success in some few favourable localities. They are of most elegant habit, forming small, dense shrubs, smothered with lovely flowers of the smallest size, and the brightest crimsons and rose colours. Though the flowers are without fragrance, the foliage emits a sweet odour, and the pruning and propagating of these pretty little shrubs are in consequence most agreeable operations. I must confess my little spray has only the merest suspicion of fragrance, but this may well be the result of the cold to which it has been



THE TRUE FAIRY ROSE, *ROSA LAWRENCEANA*.

exposed. Even the highly scented Sweet Briar foliage is usually 'fast of its scent' till a breeze from the soft South West coaxes the scent glands to release their fragrance to the air."

Most of the writers on the Lawrenceana group refer to their tenderness. Mr. Rivers describes them as being impatient of damp and requiring a light soil in the sunshine, or, as Mr. Shirley Hibberd suggests, the shelter of glass. Mr. Smee in his delightfully discursive book "My Garden" tells of how he has seen the Fairy Roses flourishing in the warm climate of Naples, where they are grown in masses as edgings to beds of other varieties; and Mr. William Paul in "The Rose Garden" remarks that if the hardiest kinds were chosen, they may be used in the same way on a dry soil in England.

According to Mr. Smee, these Roses are easily propagated. Cuttings should be taken at the latter end of May, when, if planted in pots and given a little bottom-heat, they should, he writes, flower before the end of the year. We seem here to have hit upon the right open-air conditions by planting them on a sunny, dry spot on the rock garden. Our two little shrubs were planted there many years ago. They have never had

any protection, yet through mild winters they keep their foliage, and are always among the first Roses to greet us with their tiny pink blooms in May, and some may generally be found in bloom right on to Christmas. We have usually only pruned them very slightly, if at all, yet they are still scarcely more than 2 hands high. Dean Hole's nickname of "Pony Roses" for the Pompons suggests the hand as a fitting measure for these pigmies.

Far from thinking these little Roses unworthy of a place in our gardens at the present day, I should be most grateful to any reader who would tell me where some of the kinds other than minima and Miss Lawrence can be obtained.

Mr. William Paul in "The Rose Garden," referred to before, has a list of nine varieties, of which Gloire des Lawrenceanas, with flowers of dark crimson; Fairy, syn. blush, pale pink; Jenny, syn. rubra, bright crimson; and Retour du Printemps, bright rose, sound the most desirable. It would be interesting to know if this Fairy of Mr. Paul's is the same Rose described by Miss Jekyll in her "Roses for English Gardens." Writing of Pompons and having already mentioned the Lawrenceanas, she continues, "there is also the very charming little Fairy Rose, rarely seen and of doubtful origin, but the loveliest little Rose, both for its tender colour and its supreme daintiness, that could well be imagined." Such a glowing description makes one long to possess so fair a "Fairy."

Caprice des Dames and Pompon de Paris, both with rose-coloured flowers, are other varieties of this group which should be worth growing. They make delightful little plants in small pots to bring into the house, and for that purpose, Mr. Paul writes, the market gardeners grew them in thousands. Also, as we have found in our own garden, they are ideal for the rock garden. Except on a large rock garden, the ordinary Polyantha Pompons are rather too strong growing. They want rich soil, and look miserable and starved if prevented from growing freely by being planted on poor, dry soil; whereas the Lawrenceanas rejoice in this very poverty and dryness, and are so tiny in all their parts that they associate admirably with many minute rock plants. We have the smallest of Daffodils (*Narcissus minimus*) and the little Muscari azurea growing round our *Rosa Lawrenceana minima*, and after many years of near proximity, none has unduly encroached on the other's territory. The presence in other parts of the garden of such monster Daffodils as Van Waveren's Giant or King Alfred need not prevent our appreciating the exquisite proportions of the tiny minimus; and there is surely something amiss if the great and glorious Roses which fill our beds and borders blind our eyes to the fairy-like loveliness of Miss Lawrence's Roses.

WHITE LADY.

A YELLOW POPPY.

HUNNEMANNIA FUMARIÆFOLIA, with showy flowers, which, when cut, last a long time and form an excellent decoration for flower vases. It is not a new plant, but certainly it is not cultivated as much as it deserves. Although perennial when the winter is warm enough to keep it alive, it can be grown as an annual. The seeds, however, do not germinate easily, but if soaked for a short time in warm water before sowing, they will do so more regularly. If transplanted, great care should be taken in uprooting the plants

from the soil, so as not to damage the roots. The Hunnemannia will grow in any ordinary garden soil, provided a warm and sunny position has been selected for it. It will grow about 2 feet high. The flowers are borne singly on long, slender stalks and are much more robust than those of the ordinary Poppy. A. E. B.

A GARDENER'S MORNING IN QUARITCH'S

BY THE REV. JOSEPH JACOB.

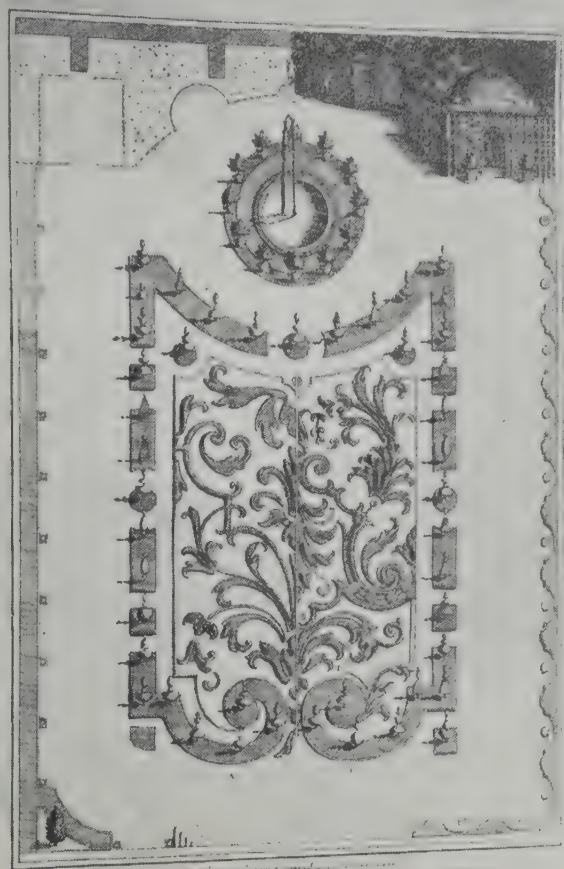
WHAT a time a gardener can have in that small upper room completely lined from floor to ceiling with books of flowers and gardens! I have on several occasions lately spent a morning there, and each time that I have come away I have felt "a day in thy courts is better than a thousand," so completely have I been entranced by all that was to be seen.

The plans of Le Nôtre carried me back for the time being to the sumptuous gardens of the Grand Monarch, Louis XIV. of France, and as I turned the pages of an immaculate de Pass, all the floral embellishments of Western European parterres and borders of the years when the seventeenth century was still young seemed to be there in that seasonless paradise where winter is one with summer, and autumn with spring.

If, in addition, the visitor should chance to be a lover of rare and beautiful books—for their own sake, apart from their particular contents—what a thrill would the having in his hands of the finest copy in the world of Isaac de Caus' "Wilton Garden" give him. Why, even to me, to whom the fascinating charms of immaculate copies are quite secondary to their

more practical and historical interest, it was something very pleasant to handle such a famous original in a state better than any other now existing. This small oblong volume contains a plan of the garden at Wilton House as it was in the time of Charles I., with enlarged details of its different parts, the fountains, groves, embroideries and raised terrace. These are all shown in their full-blown glory. In this book the old place lives again.

And what can I say to convey to others my pleasure when there was placed in my hands an old, broken-backed, thick oblong volume, "Le Livre des Differents Dessins de Parterres," published in Paris about the middle of the seventeenth century by the famous firm of P. Mariette le fils and N. Langlois, his predecessor? It is a



TWO DESIGNS, A AND B, OF EMBROIDERING FOR PARTERRES, BY LE NOTRE. A: JARDIN DEVANT LES INCURABLES.

Note the grove, its ground plan and formal boundary at the top of the illustration.

little collection of well-known designers of the magnificent age of Louis XIV. One part con-

tains original plans of no less a man than Le Nôtre, who was possibly, as Loudon calls him in his well-known Encyclopædia, "the most celebrated gardener that ever existed." Another famous man whose work is here is Pierre Betin.

What flowers were there, too! A superb copy of Fuchs' "Herbal" (1542) in its original stamped pigskin binding, and a spotless copy of de Pass' "Hortus Floridus" (1614), full of exquisite representations of the flowers of their day—high-water marks of black and white engraving that have seldom been equalled and probably never surpassed. This de Pass has the extra Tulip plates and the celebrated Aylesford book plate by Piranesi.

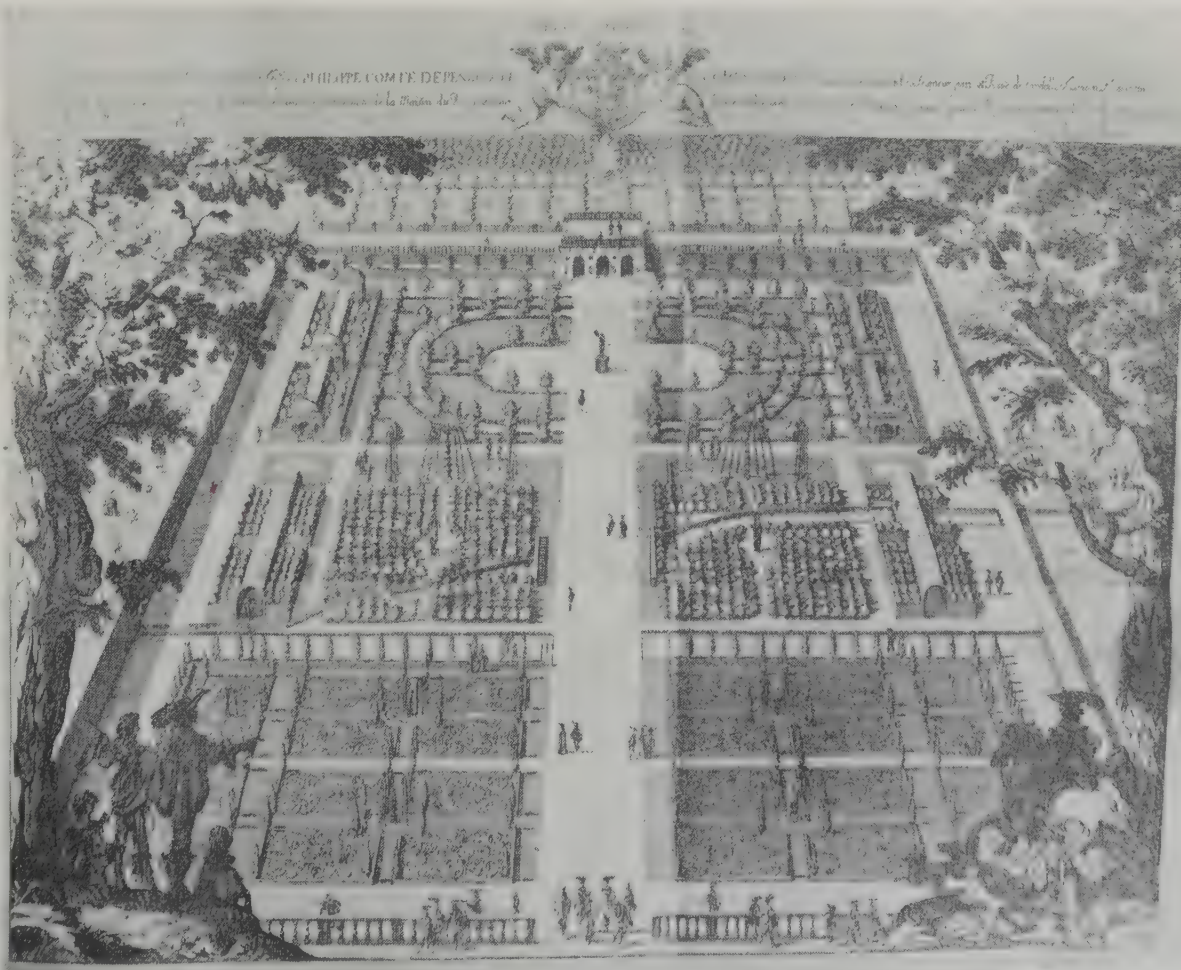
Then one handled such a book as the first edition of the famous John Evelyn's "Acetaria" (1699), the country squire to whom England owed her oaken walls, and who was what we may call the Red Cross Chief in the days of Charles II. "Acetaria, or a talk about herbs used in sallads or as vegetables," is one of the fragments of a magnum opus to be entitled "The Plan of a Royal Garden" that Evelyn contemplated but never finished. It is a chatty little 12mo volume about Lettuce, Rosemary, Onions, Sage, Cabbage, Mushrooms, and such-like plants. There is an appendix of "receits." There is enough in it to keep one quiet for a week and we should not have extracted all its goodness.

Just as I have seen botanists write of pre-Linnæan and post-Linnæan eras, so a division gardeners might make is pre-Gerardian, or all before 1597, and post-Gerardian, all after.

A celebrated garden book of the pre-era is T. Hill's "Profitable Art of Gardening," of which the best issue is dated 1579. It may be called a compilation, and is obviously rather the work of a man of letters than a practical gardener. But it is a mirror of the time, and as such it is

instructive. The copy I saw was in a wonderful state of preservation, and the highly ornamented, typical Old English brown leather binding, although lacking what probably were once silver clasps, had that mellow gloss which time alone gives. It almost goes without saying that among other topics astrology and weather prognostications loom large, and afford a homely old-worldliness which fascinates us as we read its black lettered pages.

A hurried glance at one or two others, and then time was up. As I gathered together my notes and prepared to go, the unopened volumes on the shelves seemed to say "Come again." "Come again, you will be very welcome," said their courteous Curator as I passed out to my "taxi." And Quaritch's paradise is once again but a memory.



BIRD'S-EYE VIEW OF WILTON HOUSE GARDEN, IN THE TIME OF CHARLES I., BY ISAAC DE CAUS.

DAFFODILS IN FIBRE

It is too late in the day to write in favour of fibre culture for bulbs, for surely everyone who takes the least interest in plants knows before now what a simple, cleanly and satisfactory method it is. My object was rather to draw attention to some of the best varieties for pot work, whether it be in fibre or soil. I think that in the past the large trumpet Daffodils have been used too freely, to the neglect of some of the smaller and dwarfer growing ones. In a large room a bowl of Emperor or any other big Daffodil is all right; but in a small room the tall-growing, large-flowered fellows are rather overpowering.

I shall only be echoing Mr. Jacob's words when I place W. P. Milner at the top of the list of dwarf Daffodils for fibre culture. It certainly makes a most dainty pot or bowl and, if good bulbs are employed, will always do well. Unfortunately, this variety is very particular as to soil, and but few growers are able to grow it successfully (*i.e.*, produce large stocks for sale), consequently the price has become rather high of late. Queen of Spain is another little gem and will outlast almost every other Daffodil, whether large or small. The bulbs do not all flower, as they are always collected while in growth; but even that should not deter one from trying them. A few more bulbs in each pot would make up for failures, and the blanks would be unnoticed. I have this year tried *N. lobularis* for the first time. It was nice, but a poor bulb or two rather spoilt the effect. This is another of those varieties which are very faddy about the soil they are grown in, and a stock free from unhealthy bulbs is difficult to come by.

To pass on to taller varieties, but yet of not too tall a habit, *N. obvallaris* is very good, early, of sturdy habit, and produces neat little flowers of great lasting quality. It is not so free as some other early Daffodils, but is well worth growing. Fairy, a yellow trumpet Daffodil of Dutch origin, is a *grand* thing in a bowl. It is something in the way of Golden Bell, but a little deeper in colour and a firmer and more lasting flower. Blackwell, a semi-dwarf incomparabilis, makes an excellent pot plant and is very early. Mrs. W. T. Ware is hardly worth growing as a garden or cut-flower plant, but in pots or bowls I would prefer it to Horsfieldii or Empress. P. R. Barr makes a good pot or bowl, shorter than Emperor, and the flowers are more refined. I have never tried J. B. M. Camm in fibre, but feel sure that for late work it would be very useful. It will not stand forcing at all; it *will not* be hurried.

Of those which have little or no claim to a dwarf habit, but are, all the same, excellent pot plants, one may mention Golden Spur, the *best* Daffodil for early forcing. Princeps is another excellent

variety if (and it is a big "if") the stock is a good one, for princeps may be very poor if the soil does not suit it. The old Leedsii Mrs. Langtry makes an excellent bowl and the flowers last well. Victoria is *the* bicolor for indoor work, whether it be grown in soil or fibre. Glory of Leiden makes a bold effect, but, personally, I have never liked the flower and never shall. I class it among what our old friend the late F. W. Burbidge used to call "pothouse flowers." Fairy Queen is a dainty little Leedsii hailing from the Channel Islands, which should receive attention from anyone wishing to get a little out of the ordinary rut. Argent is a semi-double which is grand in soil in a pot, and I feel sure it would be good in

in fibre, but are too well known to need any recommendation.

There is one rather curious matter connected with Daffodils grown in fibre, namely, that late potting does not seem to be harmful, as is undoubtedly the case with late planting in the open ground. On December 30, 1915, I put in a bowl of Blackwell, placed it under the packing bench in the bulb warehouse, and forgot about it for some time. When found it was put in a greenhouse, and the result is a beautiful bowl of blooms nearly up to exhibition standard, which catches my eye as I look up from penning these notes.

It would be interesting to know the reason for this. I rather fancy it lies in the fact that bulbs placed in fibre usually get well moistened at once, while when planted outside they do not always find the soil moist enough for their requirements. This is only a shot, and may be wide of the mark; but I do maintain that in fibre culture late potting, *i.e.*, up to the middle or end of November, is not harmful, though the blooming period may be a little delayed.

It is wonderful what a retarding effect over-moisture has upon bulbs. Last year the wet winter kept back the Daffodils more than seasonable frost would have done; while this season I have had an example of how too much wet keeps back pot bulbs. Some bowls of Daffodils and other bulbs were wintered in a cold frame, where they were all right until the deluge of rain came; then, the glass in the lights being faulty, some pots got swamped, and the water had to be drained out by turning the pots on their sides. These drowned bulbs were an age before they responded to the genial influence of a greenhouse, and were far behind others which had been potted at the same time but had been brought forward in a cellar, though in the end the damage done was negligible; it was only a matter of retarding.

Here is a hint that may be of service to those who are keen on growing bulbs and plants in fibre. It is quite easy to have two crops in one season by turning out bowls of early things, such as Roman Hyacinths, Paper-White Narcissi, &c., and putting in *Spiræas*. These need no careful potting.

Just put in as many roots as the bowl will hold, ram some fibre round them, and put them straightway into a greenhouse or sunny window. Dielytras may also be used in the same way, providing the roots have been stored outdoors. If kept dry they will suffer, and are not likely to produce good results.

The Daffodil season is fast approaching. What will it give us in the way of flowers? At present we are in the midst of a belated winter, and the few poor early things which are showing bud look *most* unhappy. It is to be hoped that a change may soon occur, and thus give the later varieties a better chance.

J. DUNCAN PEARSON.

The Nurseries, Lowdham, Notts.



NARCISSUS W. P. MILNER.

It is placed at the top of the list of dwarf varieties for fibre culture.

fibre, but have not yet tried it. Of the newer varieties, Lucifer and Firebrand should be good in fibre, but, unfortunately, they are not of strong constitution, and seem to have caught "the new disease" (*Fusarium*, or whatever it may be) rather worse than their stronger brethren. When they get cheap enough, look out for Mrs. Robert Sydenham, Alice Knights and Margaret. They are sure to please. For the first time I have this year had a bowl of Vega, one of my own "children," and it gave me more pleasure than any, being something out of the ordinary, and the flowers were quite as fine as those grown in the open. Of course, Emperor, Empress and many of the old favourites are good

THE CROCUS FIELDS AT WARLEY

By Miss E. WILLMOTT, V.M.H.

“A SOUTH European and West Asiatic genus, a few species extending into Central Europe, and several long since cultivated for ornament and one for saffron, collected from the stigmas, have established themselves in a few localities still farther North.” The genus is thus referred to by Bentham and Hooker in “British Flora.” Hayward in the “Botanist’s Pocket Book” gives *Crocus vernus* as “V.R.” (very rare) in pastures in Suffolk. Hooker in “Student’s Flora” says “naturalised in meadows.” Sowerby in “English Botany” thus refers to *Crocus vernus*: “Completely naturalised in meadows in several places in England. Very abundant in Nottingham meadows, where it has been long known to occur; also at Mendham, on the confines of Norfolk and Suffolk, and at Hornsey, Middlesex. In many other places it has been noticed, but only as the outcast of gardens. In Ireland it is plentiful near the Old Castle, Dunganstown, Wicklow.”

It will thus be seen that *C. vernus* is only allowed a place in the British flora on sufferance, as it were. Many botanists have wished it might be formally admitted, but it is still relegated to the alien camp.

The late Rev. C. Wolley-Dod remembered the fields round Nottingham Castle purple with them,

and tradition had it that they had been there from time immemorial. He made every effort to trace their origin, or even to discover a time when they had not existed there; but he was not successful.

Although Gibson in his “Flora of Essex” makes no reference to the *Crocus* at Warley Place, nor, indeed, does he refer to the genus as occurring at all in Essex, it is well known to have been growing here for very many years. I have traced it as far back as 1620 or 1630, but I have not come across any record of its having been planted. According to Turner (1551) and Gerard (1597), five or six species of *Crocus* were in cultivation in England at the end of the sixteenth century. Shakespeare often mentions Saffrons in his plays. In his time this name was in general use for all Croci, and even included *Colchicums*. It is not known if Shakespeare was acquainted with Turner or Gerard, but as they were contemporaries it is more than probable they may have met.

In the days when excitements and diversions in the country-side were few and far between, recreations of a very simple nature pleased the villagers, and an event of the year was a visit to Warley Place when the *Crocus* was in flower. Many a farmer would lend his waggon for the day

to convey a happy little party of mothers and their children to see the purple fields.

The geographical forms of *C. vernus* show great variation in colour and size. I have collected a large series of these forms on the Continent, and have observed considerable minor variations here, and occasionally a yellow form. Albinos are frequent.

I have noticed that Lent Lilies have their years of beauty followed by a comparatively dull season; but with the *Crocus* the wealth of colour never lessens, although unpropitious weather will mar the blossoms and shorten the period of flowering.

The illustration gives a good idea, but is, naturally, restricted, and affords but a very limited impression of the beautiful scene when the long shadows of the Chestnut trees play across the undulating sheen of purple glistening in the spring sunshine.

A LAVENDER BLUE PENTSTEMON

An attractive plant for the rock garden is *Pentstemon heterophyllus*; or, failing such a position, a spot near the front of the herbaceous border is suitable. It grows about 12 inches to 14 inches in height and in colour is a pleasing lavender blue. The season of flowering is a long one, the plant displaying a preference for a warm, sandy loam. Those who have not as yet given it a trial, and appreciate a nice clump of blue in the rock garden, would be well rewarded by investing in a few plants now.

Yorks. H. T.



A SPRING SCENE AT WARLEY. CROCUS VERNUS IN A WOODLAND.

THE BEAUTY OF PANSIES

By Miss H. C. Philbrick.

"And there are Pansies. That's for thoughts."

THESE flowers had in the old days magical attributes, for the Immortal Bard refers to them in "A Midsummer Night's Dream," when Oberon plans to work enchantments on Titania.

"Yet mark'd I where the bolt of Cupid fell:
It fell upon a little western flower—
Before, milk-white; now, purple with love's
wound—
And maidens call it love-in-idleness.
Fetch me that flower; the herb I shew'd thee
Once;
The juice of it on sleeping eyelids laid,
Will make or man or woman madly dote
Upon the next live creature that it sees."

All the "points" of show and fancy Pansies from 1841 down to recent times are written "that

in almost all parts of Britain, and although met with on hedge banks and waste ground in its wilding form, it seems in a marked degree a weed of cultivation; hence it may be found growing in both cornfields and garden ground. Its other name is Herb Constancy—a pretty name, too. By some old writers it is sometimes said to be dedicated to the Holy Trinity, because it carries in each flower three colours: "Jove's own floweret, where three colours meet." In old Herbals one will find it called Herba Trinitalis. In former times it was much esteemed as a remedy in pleurisy, asthma and epilepsy, and the plant was also considered a cordial, and efficacious in heart diseases. The poets Shakespeare (as we have seen), Milton, who speaks of it as "the Pansy freak'd with jet," Spenser and Chaucer also sang in praise of this flower. The first flower show was held under the auspices of the Hammersmith Heartsease Society on May 21, 1842.

Culture.—The most approved method of propagation is by taking off young slips or cuttings in the autumn, which is the best time, as then

one-eighth; and coarse sand, one-eighth; but peat soil should on no account be intermixed, as it burns up the Pansy completely. These ingredients should be well mixed together, and purified from worms and slugs by having the soil carefully turned over once or twice and the slugs and worms picked out; and in a short time it will be fit for use.

Situation.—The situation best adapted for Pansies is one which is sheltered from the mid-day sun, but which receives a little in the morning, as then it is not of sufficient power to injure their glorious colours.

Transplanting.—This may be done at any season, but in so doing an error is prevalent. Lift the plants carefully with as much soil as will adhere, and plant them at once.

One great feature of this delightful flower is its fragrance, besides holding its own for treasury of producing the most lovely shades of colour, and no plant can, I think, break a lance with it for duration of blooming. Its humble growth recommends it for a bedding and edging flower, and its moderate price entitles it to a place in every garden, from cottage to palace.

Few flowers are more deserving of cultivation than the Pansy, whether we take into consideration its beauty and the great variety of its colours, the extreme facility with which it is propagated, or the cheapness of fine sorts. In the first place, as to its beauty and the variety of its colours, scarcely any flower can compete with it. The Tulip, "the king of flowers," can boast of red through all its shades, purple, brown on white, or yellow grounds; the Pelargonium rises from the lightest shade of pink to scarlet and purple—some are white, too; the Ranunculus varies from pink to purple and brown, in selfs and edges and mottles on white and yellow; and the Rose, "the queen of flowers," has pink, red, yellow, white and purple varieties; but the Pansy, the lovely spring, summer and autumn flowering Pansy, has white, yellow, blue, purple, purplish crimson, and all the possible tinges and combinations of these colours among its gems. I do not wish to detract from the flowers mentioned—far from it, for I love them, love them all; but I wish in the present article to direct attention more to the Pansy. If it is less cultivated than it once was, why, I ask, is it so? It is not that the flowers are not so fine as they once were, for new gems, real gems, come out every year, though, of course, trash, too, as to form sometimes. None, however, need buy without seeing, and if the person intending to purchase is too far from an exhibition to see blooms there, most of our nurserymen would furnish information by post. Again, it is a plant so easily propagated that one may soon possess quite a stock of a fine sort in a year. The Pansy may be planted at all seasons. In arranging the bed, it may be well to attend to the position of the flowers, not to have those in proximity which resemble one another; for instance, a blue and white one should be beside a yellow and purple one, and so on. A foot each way is about the proper distance for plants if the bed is removed, or, rather, a fresh one planted every year, as ought to be the case. The raising of seedlings is another great source of delightful recreation to the Pansy-lover. The seed should be sown in boxes in the autumn, and the plants transplanted into beds in the spring. I will conclude with the hope I have not offended the Rose, Ranunculus, Tulip or Pelargonium. I wish all growers of them every pleasure in so doing; but, in



A BOWL OF IVORY-WHITE PANSIES.

he may run that readeth it" in a volume, "Pansies, Violas and Violets," by William Cuthbertson, J.P. We who possess it are carried away captive by it.

The Heartsease or Pansy, *Viola tricolor* (Natural Order Violaceæ), belongs to the same genus as the Sweet Violet, the wild Pansy or Heartsease being *Viola tricolor*, and the Sweet Violet, *Viola odorata*. It is a genus of which the several species are subject to a vast amount of variation, more or less marked, in the various plants, and that has therefore been the reason of much difference of opinion, some observers admitting to full specific rank forms that others can only acknowledge as more or less prominent variations from the true type forms. The Pansy is as variable as any of the other members of the genus; but whatever difference of form it may present, it is always to be distinguished from the other Violets by the general form of its foliage. The stem, too, branches more than is usually found in the other varieties of this family. The Heartsease is found

the ground and weather are more suitable for the formation of rootlets, on account of the dulness and dampness. About the first week in October a bed should be prepared of light but rich soil, raised a little above the path in order to drain off superfluous moisture. The cuttings are then made ready by stripping them of their under leaves and cutting close down below the bottom joint, from which the roots must spring; for if this plan is not pursued the cuttings will decay to that joint, which not infrequently destroys the whole. After the bed is prepared, the cuttings are arranged according to their varieties, each sort being marked by a tally stick, numbered or named, according to the pleasure of the owner. The cuttings will be found to be well rooted in about six weeks, when they may be planted out for blooming, or potted up to keep over the winter in a frame.

Soil.—The soil in which the Pansy is found to flourish best is a compost of cow-manure; one-half; fresh loam, one-quarter; leaf-mould,

conclusion, I wish to recommend our little gems the Pansies, and ask all my friends who read this article to grow them if they have a garden, for to grow them is to love them.

PERPETUAL-FLOWERING CARNATIONS

IN the process of potting up cuttings, many growers in midwinter wisely employ a 2-inch pot, shifting thence to a 3-inch pot and, in due course, to a 5-inch and afterwards to the flowering pot. All this is wise but not necessary. The chief point to watch is that young Carnations do not become hard and starved. They must be kept going, because at this stage of their growth is determined whether a free-growing plant or a stunted one is to be the result of our labours.

At this season the small pot in which the cutting more readily establishes itself in midwinter is less necessary, because now it roots into the soil more quickly, and the cultivator may pot his cuttings directly into the 3-inch pot, using a compost of four parts loam, one part sand, and one part leaf-soil or very old *well-rotted* (not unless) stable manure. A little burnt bonfire rubbish is an excellent addition. We thus save the labour of one potting. At this date no harm is done to the plant if care is used in watering, and the ball of soil not allowed to remain wet before the roots penetrate it. Of course, one shades the freshly potted cutting with sheets of paper until it is established.

It is early yet to discuss the further shift from this 3-inch pot, but this may be done in due course by jumping, as it were, from the 3-inch pot into a 6-inch pot, if due care is given in watering until the plant is established. The danger with a Carnation lies not in overpotting in spring, but leaving it too late, until the plant has become starved and hard. Yet, however, if the grower elects to use a 7-inch or 8-inch pot for the final stage, it is desirable to employ the 5-inch pot before the final operation. The young plants are ready for their next shift within four weeks of their roots covering the ball of soil.

The Interesting Operation of Stopping will be one of the next items to need attention. One of the most important points in stopping is not to do it too soon. A plant should not be stopped in a 2-inch pot, for two reasons, viz.: (1) It should have been potted into a 3-inch pot before it was ready to be stopped. (2) A young plant established in a pot of not less than 3 inches in diameter has more "go" in it than one in a smaller size. The fundamental reason for stopping a plant is to produce a strong bushy plant. If you stop a weak cutting, you cannot possibly get a strong growth, and it is for this reason that many people do not even stop their plants in a 3-inch pot at all, but, immediately they are established in this size, pot them into the well-known "48" pot, viz., the 5-inch, and stop them as soon as they are semi-established.

Where to Stop.—With most varieties, when the plant is about 6 inches or 8 inches high from the pot, the top is broken or cut off 2 inches or 3 inches from the point of the growth. An expert can pull this growth out from a joint, but this is not necessary. Some varieties, notably *Baroness de Brien*, is best grown 2 inches longer and

stopped in the same way. Incidentally, I may say that this is the trade secret way of growing this variety, and if this is done when the young plant is in a 5-inch or 6-inch pot, it breaks away freely and no further stops are given, for enough shoots are made, and it is such shoots which produce the wonderful flowers that are to be seen of this variety in midwinter.

The illustration shows the approximate place where the stop is made. A plant should never be stopped before it reaches this size. It may

THE ETHICS OF ROSE PRUNING

(Continued from page 138.)

AS Roses vary so, even when requiring identical pruning, we are of opinion that illustrations of how to prune certain types often defeat their special object. It should be noted, however, as essential that all Roses requiring, say, moderate pruning are



FIRST AND SECOND POTTING, AND WHERE TO STOP FOR THE FIRST TIME.

be stopped higher up, but not lower than the tie, which indicates the part of the stem to break or cut; but it must be borne in mind that it is wrong just to break out the soft point of a growth, for this does not then produce a strong break. The break must be made into the soft woody stem. I have been discussing what is known as the first stop. The second will be dealt with shortly, for this is a season full of interesting work, demanding instant attention.

Bush Hill Park.

LAURENCE J. COOK.

not pruned alike. The reason why is simple. Is the Rose only a summer bloomer? Is it a perpetual bloomer? Is it a purely autumn bloomer? Does it bloom on the terminals? or the laterals? or both? or on the twiggy growths produced on the laterals, as in the *Banksian* Roses? or does it bloom on the shoots of the current year? or those of the previous year only? or only on those of the two or three years? or on all or both? or is it intended for hybridisation? or for forcing? All this, and more, has to

be known and appreciated before *correct* pruning can be undertaken; otherwise you run the risk of losing a season's bloom. The Banksian, pruned as the multiflora, or even as the Wichuraiana or its hybrids, would be flowerless from one generation to another. So the *system* of pruning, against the actual operation thereof, is not so simple as the novice would fancy in his happy innocence. The writer has too frequently seen the unhappy results subsequent upon such injudicious pruning in the grounds of more than one of his rosarian friends—even gentlemen's gardeners seem hopelessly abstruse in this respect, however clever they may be with the beloved Chrysanthemums or Hamburgh Grapes.

It is a vexed and often much discussed question as to the advantages respectively of early winter and early spring pruning. Spring and *late* winter have become the commonly accepted times for ordinary pruning operations. Pruned in November, the remaining buds become plumper through the concentration of the sap, as the roots are either apparently at rest or soon will be; but pruned in March, when the roots are commencing to move and the sap to circulate, there is a certain percentage of nutrition lost to the plant. This and the general slackness in the horticultural world in November are the great advantages of this pre-winter pruning; but in a mild winter, and especially so if the wood is not properly mature, these pruned plants are very likely to break into bud and be killed by frost. The consequence is that, requiring a second operation in spring, they become, as it were, over-pruned, and flowers the same year are unduly delayed. Some Roses are more excitable—that is, more easily excited into growth—than others, and such should never be pruned in winter, but be left until the latter end of March or the commencement of April. This, notwithstanding, has nothing whatever to do with the *gradual* thinning and pruning of certain scandents and ramblers after the close of their blooming season.

Non-Excitable.—Alba, Centifolia, Gallica, Moss, and Rugosa.

Excitable.—Bourbon, China, Hybrid Bourbon, Hybrid Remontant, Hybrid Tea, Noisette, and Tea.

The above are the more prominent examples of what has just been discussed. For the reason already given, if the reader prunes two plants of the same variety, one at each season, what does he notice? The winter-pruned one develops laterals and foliage with adequate regularity; but the spring-pruned plant has the top bud growing well, while the lower ones too frequently refuse to move until later. The reason is an extremely simple one. In spring the sap is more or less in motion, and very apt to exude from the freshly pruned surface; and the lower buds, finding themselves clogged with too much food by the cutting away of the upper portions of the shoot and its partially developed foliage—and so clogging the flow—remain quiescent, while the top bud or two commence breaking forth into growth. This is the main disadvantage of spring pruning, especially if left till late in the season.

Roses with blooms too full, such as La Reine, generally are disappointing, and particularly so in cheerless summers. If such Roses, by rather poor soil and careful attention to pruning, can have their vigour checked, the blossoms do not so easily ball, rot, and drop.

TORBAY.

(To be continued.)

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Orchard-House.—As the trees pass the flowering stage they should be syringed freely with water of the same temperature as the house. A genial atmosphere must be the rule, and the temperature kept about 50° or 55° at night. Ample ventilation should be provided, but currents of cold air passing over the trees must be avoided. Close the house sufficiently early to retain the sun's warmth. Some of the trees will have set their fruits, and will require assistance at the roots. Liquid manure or some fertiliser may be applied, while a few trees can be top-dressed with rich soil. Dryness at the roots must be guarded against.

Plants Under Glass.

Caladiums.—The principal batch of these showy plants ought now to be started in pots in proportion to the size of the corm. Keep them near the glass, and do not shade more than is absolutely necessary. If grown as hardily as possible, they may be utilised for decorative purposes.

Carnations.—Plants in 3-inch pots must be moved on before they become root-bound, and kept growing steadily in a temperature of 50° to 55°. The house should be light and airy, and water must be afforded sparingly. A suitable compost consists of three parts fibrous loam, with leaf-mould, mortar rubble and sharp sand. Old plants that have filled their receptacles with roots must be fed with some special Carnation manure. Vaporise the house directly insect pests are noticed.

The Kitchen Garden.

Beetroot.—A line or two of a Turnip-rooted kind may be sown on a warm border. The roots will be found acceptable later on when salads are in greater demand. Large-growing Beetroot should not be chosen; colour is more important.

Spinach.—Winter Spinach should be cleaned over and encouraged to make healthy growth. Sowings of Summer Spinach may be made at intervals throughout the season, but I have had excellent results, especially in hot seasons, by sowing the winter variety. It is worth trying.

Brussels Sprouts.—If seed was sown in boxes as previously advised, the seedlings may be pricked out on a prepared piece of ground where some slight protection is afforded.

Turnips.—A further sowing of Early Milan is recommended on a warm border which has been dug deeply. The value of this will be apparent in May or June, should we have a spell of dry weather.

The Flower Garden.

Polyanthuses.—The sowing of these is often deferred until May or June, but much larger and better plants are secured if the seed is sown now. It may either be sown in boxes or in the open ground, and when the seedlings are large enough they should be transplanted in prepared nursery beds in the reserve garden. If kept hoed and free from weeds, good progress will be made before the autumn. A partially shaded position should, if possible, be selected.

The Rose Garden.—Where Roses are grown in quantity, the present will be a busy time in pruning and thinning the trees. Strong-growing kinds, such as Frau Karl Druschki, which have made strong shoots may be pegged down, and flowers will be produced from practically every node. When pruning the Hybrid Perpetuals, the condition of the tree, the variety and the object we have in view must be taken into consideration. All weak and unripe wood must be removed; keep the centre of the tree open, and prune to a bud pointing outwards. Weak-growing varieties should be cut back more severely than the strong-growing kinds. Roses against walls must not be pruned so hard; merely remove some of the old wood and cut out sufficient growths to prevent overcrowding. The Austrian and Penzance Briars must be treated much in the same way, just shortening the strongest shoots. The Hybrid Teas should be pruned when the others have received attention. When collecting the prunings,

the Rose garden should be cleared of all weeds, &c., and, if thought desirable, give a mulching of manure.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)
Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Flower Garden.

Sweet Peas.—Pots of these that were sown with a view to planting out of doors should now be thoroughly hardened off preparatory to planting in the open. The ground for Sweet Peas should have been trenched and heavily manured during the winter if good results are to be obtained. After planting they should receive the protection of some short Spruce branches, which, besides providing immediate shelter, will serve to lead up the young shoots to the higher stakes provided later on.

Herbaceous Borders.—Any replanting or formation of new plantations in this department should be no longer delayed, as most of the plants will have made considerable growth and will require careful handling when dividing them. A short-pronged digging fork is better than a spade for separating the large clumps. Select young, fresh, growing pieces from the outsides in preference to using the old, hard stools. The young sets should be planted fairly deep. The tendency with inexperienced persons is to plant too shallow, and when the soil settles down, the plants are left much above the average surface level, and consequently suffer from drought.

Propagating Bedding Plants.—Although the extended use of annuals has to some extent reduced the demand for those bedding plants that require to be propagated from cuttings annually, there is still room for a selection of the most useful, and all cuttings should now be got on the move as soon as possible. Heliotrope, Iresine, Ageratum and Lobelia may be rooted at this time in the boxes they are to occupy up till the bedding-out season. Most of these can be rooted on the pipes in a recently started vinery if room is otherwise scarce.

Violas and Pansies.—These may now be planted out in the beds. If raised from autumn-struck cuttings, they should be well rooted by now and must not be left in the frames too long. Plant deeply to encourage branching growth; they can be pinched or cut over several times, according to when they are required to be in flower.

Hollyhocks.—Plants raised from seeds which were sown last summer should now be planted out in their flowering quarters. Seedlings rarely succumb to the disease so prevalent in some districts among those raised from cuttings.

Early Flowering Chrysanthemums, as soon as they are well rooted, should be potted up and gradually hardened off, so that they may be ready for planting outside by the beginning of May.

Calceolarias for bedding purposes which have been rooted in cold frames will now be making some growth. The points ought to be pinched out in order to produce side shoots, and should be planted into frames, allowing a space of 9 inches between the plants. A light, rich mixture, 3 inches deep, on a bottom of coal ashes suits well, as, when lifting, compact balls can be obtained.

Fruit Under Glass.

Vines.—All the late varieties should be on the move now. The disbudding of these, with tying and thinning among the earlier crops, will demand constant attention. Economy in labour may be practised in other departments, but vineries must receive full attention, or the crops will suffer and the Vines be permanently injured. Latest crops of Black Hamburgh should receive no fire-heat to assist them to start, as they will come on fast enough with solar heat. When growth has fairly begun, however, care must be taken to keep them comfortable at night and on cold, sunless days. Attend well in the way of stimulants to those now swelling their fruits, and keep the paths and borders thoroughly damped several times daily.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)
Glamis Castle, N.B.

THE GARDEN.

No. 2315.—VOL. LXXX.

APRIL 1, 1916.

NOTES OF THE WEEK

National Sweet Pea Society.—An excellent schedule of prizes for the sixteenth exhibition to be held in the Royal Horticultural Hall, Vincent Square, Westminster, S.W., on July 11, is now being issued, and may be obtained on application to the Secretary, Mr. H. D. Tigwell, Harrow View, Greenford, Middlesex. Many challenge cups are offered, in addition to substantial prizes in the county classes and for small growers.

Journal of the Royal Horticultural Society Gardens Club.—With so many members in the Navy and Army, it is not surprising that the Journal No. VIII., just published, should contain numerous letters from the seat of war. Many have passed through the heaviest part of the fighting unscathed, some have been wounded, but the letters are invariably cheerful and make bright reading. We are sorry to learn that four old students—A. Berg, F. N. Grant, G. Osborn and J. Selkirk—have met their deaths at the Front.

Crocus David Rizzio.—Although an old variety, this is certainly one of the most delightful of the large-flowered spring Crocuses. For years it has been quoted in nurserymen's catalogues by the thousand, and incidentally it is one of the least expensive. The flowers are remarkably fine, while the colour is a pleasing shade of lavender purple. The illustration depicts a group of Crocus David Rizzio in the rock garden at Woodhall, Dulwich.

Herbaceous Calceolarias.—

Although many recommend sowing these Calceolarias earlier, and others somewhat later than this date, yet for all practical purposes the present will be as good a time to sow as any. As a rule, the seeds only take about ten days to germinate. A very good compost in which to sow would be equal parts of good loam and leaf-soil, with a sprinkling of sand to keep the whole porous. Press this moderately firm into the seed-pan, and, should it require watering, do so before sowing. As the seed is like snuff, great care must be taken to have it evenly distributed, and the merest dusting of fine soil will be sufficient to cover it. Put a sheet of glass over the pan and place in a cool house or frame. The glass must be turned and wiped each day.

Tuberose.—The arrival of the first batch of Tuberose reminds one that the bulbs should not be kept long in the cases in which they are sent, as they are liable to damp. Those not required for immediate potting may be laid out on a dry shelf secure from frost. Before potting, all the small bulblets should be carefully rubbed out, so that all the energy is directed to the flowering growth. A light, sandy loam suits them well. After potting they should be covered and kept dark until the roots are well round the pots. Those for earliest use should be kept growing on steadily in heat. Later batches can by and by be given cooler treatment, and will do well in a cold

The Kew Flag Pole.—This huge pole, the gift of the Government of British Columbia, is now ready for erection. We understand, however, it is not proposed to proceed at once to raise the pole into position; in fact, the difficulties of securing adequate labour and material may result in this being deferred until after the war. The work of transporting the bulky log over the lawns from the river to the south end of the Berberis Dell, where it is to be erected, was done with the aid of a crab machine and planks and rollers. It has been recently cleaned, and dressed with Carbolineum, a creosote preparation, which, it is hoped, will aid in preserving the wood for even a longer period than that of its predecessor.

Plants Collected in Sikkim.

At the general meeting of the Linnean Society of London on March 16, Mr. C. C. Lacaita read a paper entitled "Plants Collected in Sikkim, including the Kalimpong District, April 8 to May 9, 1913." He gave an account of his circular journey from Darjiling to his starting point, part of it with the party of H.E. the Governor of Bengal. The monotony of the forest region was mentioned, and the marvellous abundance of the Aroids. An account was given of a new Rhododendron and some critical remarks on the species of *Fragaria*. The paper was illustrated by lantern slides of the scenery and people.

Vegetable Marrows.—If movable frames are available, a sowing of these may be made now, placing a few seeds in 4-inch or 5-inch pots. The seeds may be germinated in a warm Melon-house,



CROCUS DAVID RIZZIO, AN OLD FAVOURITE IN GARDENS.

frame during the summer months, from which they can be removed in batches as required.

The Employment of Wounded Soldiers.—It is gratifying to see that several disabled soldiers are being found employment at Kew. For such duties as park constables, gatekeepers and museum porters, old soldiers have always been given the preference, but these have in the past been able-bodied men. Though it is not possible to fill all these posts with our wounded heroes, we trust that a number may be found permanent employment, and that both public bodies and private employers will consider the claims especially of the married men.

when the number of plants should be reduced to three in each pot and removed to near the glass in a cooler house. As soon as the plants have made their first rough leaves, they should be planted out on mounds of earth on the top of a slight hotbed, over which a large frame has been placed. By the time the plants have grown large enough to fill the frames, the weather will be sufficiently warm to dispense altogether with the protection of the frames, when the plants should be allowed to ramble unrestricted. Later sowings may succeed in a hot summer, but in the Northern districts it is advisable to have the plants well advanced under glass by the month of June.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Narcissus Fly (*Merodon equestris*).—To-day (March 18) I carefully went over my Narcissus borders, and wherever I found a blank, or apparent poor growth, I dug down for the bulb. It was the best day's work I have done for a long time. I was able to kill a considerable number of the larvæ of the fly. They had reached the neck of the bulb, and in most cases I was able to extract them with a pin. I cleaned out the bulb and replanted the "shell," as I have previously found that a bulb, although badly damaged by the ravages of *Merodon*, will make growth again and form bulbules. I have two nice small bulbs of a variety I purchased as a single bulb stock which proved to have a *Merodon* in it. For many years I was immune from *Merodon*, and until last autumn I had not woke up to the danger. The hot-water cure, I hope, may prove effective, but it is a big order to put all one's bulbs through the process, and in any case some *Merodon* may escape destruction; consequently, in addition to the autumn inspection and treatment, I strongly recommend this spring inspection, which, if followed up systematically, should go far to complete the eradication of the pest.—C. LEMESLE ADAMS, *Pendeford Hall, Wolverhampton*.

Gas Lime and Club Root.—I have been much interested in the article by Mr. Thomas Wilson in *THE GARDEN*, issue March 4, page 119, on "Gas Lime as a Cure for Club Root." But it seems to me that there is one very great difficulty about it. Those of us who have had some experience with the disease know well that gas lime is a certain cure, but the question to be considered now is where to get gas lime. Of course, readers living near towns where gas is still purified by the lime method can get it; but those who live in the country and in towns and cities where gas is purified by a newer and more satisfactory process cannot obtain it. They would like to cure the disease by gas lime, but they cannot get any from the gasworks. Readers in such a position may like to try the following method, which I was discussing with a friend only the other day, who told me it had proved highly effective: Three or four pecks of good fresh-slaked lime per square rod were dug into the ground in the early winter, and a month or two before the greens were planted a peck of good rough salt per square rod was forked in. My friend cured his ground of club root in a single season, and has never had it since; but as a safeguard he dresses his land with salt and lime every two or three seasons.—E. T. ELLIS, *Weetwood, Ecclesall, Sheffield*.

Exhibition Vegetables v. Utility.—One more word in reply to Mr. Chapman respecting the above. As I endeavoured to make clear, it was not my own taste which I was considering, but that of the general public. I went to some pains to point out that all the vegetables on view for sale were of exceptional quality; consequently the size would be no detriment to the Beetroot in the eyes of the majority. I must confess I am a little amused at Mr. Chapman's defence for his large Capsicums. In my opinion, these are of about as much value as excessively large Radishes. Capsicums, if I am not mistaken,

are usually grown for their strong, hot flavour, and are of most service when of medium size. I am afraid the majority of the members of the Royal Horticultural Society's fruit and vegetable committee also must differ from Mr. Chapman, and I feel it will be a long time before some of us are converted to this taste in relation to Capsicums.—E. BECKETT, *V.M.H.*

A Plea for Rose Hedges.—I should like to endorse Mr. Ellis' plea for Rose hedges, in *THE GARDEN* for March 18, page 136. Whether used as a screen to separate the flower from the vegetable garden, or as a hedge to hide buildings or unsightly objects, Roses are especially applicable, as, if regularly pruned and properly trained, they do not form such a dense growth as Privet, Hawthorn, or Holly, and consequently do not shut out light and air as the shrubs do. Besides these and other considerations, the best part of the year, when the garden is most used, is gay with the brightness of the blooms and the delight of their perfume. Added to these qualifications, Roses are of rapid growth and can be trained to any height or breadth, and, moreover, what is often important to small garden owners, their supports may be very cheaply and easily constructed. I may say that when I first came here, my small back garden contained Cabbages on one side of the main garden path, and Gooseberries and Black Currants on the other. I at once introduced several rows of Strawberries and Raspberries, besides the Cabbages, retaining a narrow strip by the path, about 40 feet long, for a border of annuals and perennials, backed by a Rose hedge, which was constructed as follows:

At each end of the 40 feet run I placed a rustic tree trunk between 3 inches and 4 inches in diameter. Midway I had a firm iron arch placed, spanning the pathway at right angles with the hedge and of a good height. Between these strong supports I put, at distances of about 4 feet apart, some stout Bamboo rods about 8 feet high, into the hollow tops of which I drove plugs of wood projecting 2 inches or 3 inches above the rods, which formed a good hold for binding three strong galvanised wires attached to stakes in the ground equidistant apart, which retained the rods in their proper position against the effects of strong winds. The final thing was to run three rows of galvanised wire, one above another, the whole length of the hedge, so that a skeleton frame was built up instead of an obtrusive trellis. Against this screen I planted the following Roses: Crimson Rambler, Psyche, Alistair Stella Gray, Euphrosyne, Bouquet d'Or, the old Damask Rose, and Carmine Pillar. This last was planted in the middle near the arch, over which it has been trained, producing every season a splendid blaze of colour, especially in the setting sun as it sinks over the neighbouring hills with such glorious effects as are to be seen only in Devonshire. I may add that though the Bamboo rods have somewhat decayed near the ground, they have been easily repaired by stakes, and the wires straightened during the pruning the Roses get every autumn, so that when the stems are tied in, they to a great extent support themselves.—JOHN R. JACKSON, *Claremont, Lympstone, Devon*.

Renaming.—I am in perfect accord with "H. P." on the question of renaming, for there can be no doubt that it is a most reprehensible act, whether it be in the case of Roses, Chrysanthemums or anything else. The case quoted

by "H. P." in connection with Délaux's set of new Chrysanthemums interests me very much, for I thought the fact had long since been forgotten. It was I who made the discovery thirty-three years ago, as probably he remembers. In the early eighties Délaux was practically the only seedling raiser to send out novelties. They were only bought and introduced here by a few specialists, and for a time Délaux's name was kept a secret.

As a small amateur grower of Chrysanthemums, it was a matter of some curiosity to me to find that so many bore French names. How or where I discovered that Simon Délaux was the originator of them matters not, but his catalogue was soon in my possession. Then, to my astonishment, the discovery was made that a whole set of novelties listed by an English firm were none other than Délaux's new varieties with English names attached, or the French names mangled out of all recognition. What "gave the game away," to use a familiar expression, was the unscholarly literal translation of the French descriptions. They were made by an English person whose knowledge of French was of the most elementary nature. To this fact I owe my first appearance in print in an English gardening paper, for I wrote an energetic protest against the action of this English house. My article will be found in the *Gardeners' Magazine* for December 22, 1883. I had then no idea that my contribution would be the forerunner of thousands of other articles in the horticultural Press, but such it was. "H. P." has an excellent memory, but the renaming he refers to took place with M. Délaux's 1882 set of novelties and with his 1883 set. Each set comprised twenty varieties, or forty in all, and barely half of them appeared in the English catalogue with their proper French names.

The National Chrysanthemum Society had not then been started on its national title. The persons so honoured were prominent members or officials of the old Borough of Hackney Chrysanthemum Society, which was then just on the point of blooming forth into the "National." I could give the names of all, but the most flagrant cases were *La Bienvenue*, which became *J. Hillier*; *Source Japonaise*, which was rechristened *R. Ballantine*; and *Tricolour*, altered to *Mr. J. Starling* in the 1882 set. *M. Deville* was in the 1883 set, and was called *E. C. Jukes*. *Jeanne Délaux*, it is true, became *F. A. Davis*, but this was done by another firm. The other cases of pure mutilation or translation might be given, but a few will suffice. *Le Chinois* became *Chinaman*, *Gloire de France* was simplified into *La France*, *Souvenir d'Amsterdam* was called merely *Amsterdam*, *Boule d'Argent* became *Silver Ball*, *L'or du Rhin* was translated into *Golden Rhine*, and so on. It is perhaps unnecessary to say that after my appointment in 1886 on the National Chrysanthemum Society's catalogue committee, these crooked things were put straight, and for many years afterwards while I acted as secretary to that committee no effort was spared to remedy any case, wilful or accidental, where renaming had occurred. My chief reward, however, was, let it be said to the honour of our Chrysanthemum importers, that no further attempt was ever made at renaming on such a scale thereafter, and that I received tangible proof from French Chrysanthemum raisers and growers of their appreciation of my efforts in rendering unto Cæsar the things that are Cæsar's.—C. HARMAN PAYNE.

Raoulia australis.—It may be of interest and value to some to state that *Raoulia australis* has stood a somewhat trying winter here and is in perfect condition. It is growing in a moraine sloping towards the west and south-west, and is planted with a little lime rubbish among the chips of the moraine. It is a charming little silvery carpeter, hardly rising above the surface, and looking white in winter as well as in summer. *R. australis* is one of the few members of a genus of *Compositæ*, comprising some twenty species, which have been introduced. They practically all come from New Zealand, although Tasmania affords us one or two, and one is recorded from Australia. *R. australis* is one of the New Zealand species.—S. ARNOTT, *Sunnymead, Maxwelltown, Dumfries*.

Bignonia venusta.—Anyone acquainted with this delightful *Bignonia* can fully understand its magnificent display under the conditions detailed by Mr. Woodall, page 137, issue March 18. I have often been surprised that we do not meet with it more frequently in this country, for the blossoms are of that brilliant tone of intense orange which shows up so effectively during the half light of a dull winter's day. For its accommodation a large structure is necessary, and it needs a temperature above that of an ordinary greenhouse. The first time I saw this *Bignonia* giving of its best was in the early days of the late Mr. Woodbridge at Syon House, the specimen covering a considerable space of the large conservatory there. Circumstances have prevented me from visiting Syon House for some years, so I cannot say if the *Bignonia* still flourishes. As above stated, a large structure is necessary to its well-doing, and plenty of sunshine towards the latter part of the summer is required in order to ensure a good display of bloom. It can be readily increased by cuttings of the half-ripened shoots in late spring, selecting for the purpose those of sturdy growth and medium vigour rather than the very strong ones. They must be put in a close propagating-case in a warm structure.—H. P.

THE NORTH BORDER

BY GERTRUDE JEKYLL.

SOME supplementary notes may perhaps be offered as an addition to the excellent article by Mr. Hadden in *THE GARDEN* of February 19. The possibilities of the north border are often overlooked, but there are many plants that do better there than in any sunny aspect, for many of them come to us from woodland places and the cooler sides of mountain ranges. Solomon's Seal is so well known that no description is needed, but where there is a north border, there it will be best in place. Much like it in its general way of growth, and botanically closely allied, is *Smilacina racemosa*, a North American plant, but in this the flowers are in close terminal racemes, not in drooping axillary clusters. It is interesting also in autumn, when the weight of the fruit, like little berries curiously veined and marbled, bends the stem over and makes it sway and swing heavily when moved by wind. The little plant that is commonly called *Smilacina bifolia*, but more correctly *Maianthemum Convallaria*, is another near relation and one of the loveliest plants for the rock edge of the north border. It should be remembered that it does poorly on strong soils, but revels in sand or in peat and leaf-mould. Lily of the Valley must not be forgotten, for though we grow

it in greater quantity in reserve ground for cutting and in woodland, yet its beautiful foliage and sweetest of sweet bloom must be near the front edge of this border also. The very beautiful Alexandrian Laurel (*Ruscus racemosus*), a Portuguese Butcher's Broom, will be a fine thing towards the back, and when the plants are well grown—it is slow of increase—a frond or two may be spared for indoor decoration, when it will last in water for some weeks. All these plants are nearly allied. The taller Campanulas are for the most part shade-loving plants. Among them the best will be the white form of *C. macrantha*, and *C. persicifolia* in both the blue and white colourings. Next, shorter in height, will be *C. alliariaefolia*. A beautiful Bellflower that deserves to be better known is *C. eriocarpa*, about a foot high, with a quantity of light purple bloom and greyish foliage. *C. carpatica*, with some of the good garden varieties, are about the same height; and quite in the front, in the joints of the stony

the taller climbing Peas that have leaf-tendrils, though botanists have now put them all together under *Lathyrus*. For autumn beauty there should be *Gentiana asclepiadea*, with its beautiful arching sprays of blue flowers in September. All the *Meconopsis* like shade and a cool exposure, so that both of the tall Himalayan species—*M. nepalensis*, with its drooping sulphur bells, and *M. Wallichii*, with still larger flowers of pale grey blue, a plant of much the same habit—will do well. A newer kind is the Chinese *M. integrifolia*, a yellow-flowered species. We should think more of the common Welsh Poppy (*M. cambrica*) if it was a rarity, but it is always a beautiful plant with its fresh-looking foliage and clear, pale yellow bloom; but it seeds about so freely that in many places it becomes troublesome. It is a capital plant for such a place as the joints of flagstones at the base of a cool wall in any dull yard or court. Pansies of all kinds are never seen to better advantage than in the cool, northern facing border,



THE PALE GREY BLUE FLOWERS OF *MECONOPSIS WALLICHII* IN A WOODLAND GARDEN AT CLANDON PARK, SURREY.

edging, the lovely little *C. pusilla*, both the light purple of the type and the white variety, will be charmingly in place. These Campanulas will succeed in any soil, but all are happiest in a chalky one. *Tiarella cordifolia* must not be forgotten, for it is only quite happy in a north border or in slight shade.

If there is a peaty patch, a place near the front should be given to *Galax aphylla* and to *Shortia galacifolia*. In ordinary loam for preference, but in almost any soil, there should be *Orobus vernus*, with its bright crimson and bluish Pea-shaped flowers. It is the toughest plant I know to divide. The crowns hang tightly together, and the roots are so strong that it is almost like cutting so much wire. Its fine relative, *Orobus aurantiacus*, follows it later. The pale green leaves and deep orange flowers are so effective that one wonders it is not oftener seen in gardens. *Orobis* is the older and more familiar name, and convenient to use for garden purposes to distinguish these plants of tufted habit from

where all flowers of purple and white colouring look their best.

For the back there will be Foxgloves, of which the pure white may be considered the finest, and Mulleins, that do not open fully in sunlight, and the tall Evening Primrose. Then there are the Columbines, both short and long spurred, absolutely well in place. For the front rock edges there are a number of suitable things. Besides the Mossy Saxifrages mentioned in Mr. Hadden's article, there is London Pride, always one of the most beautiful of plants, although so common; and there is *Asarum europæum*, with its deep green, highly polished, Cyclamen-like leaves, and *Waldsteinia*, also with polished leaves shaped something like those of a Geum, and deep yellow Buttercup bloom; then, among plants already mentioned, the small Bellflowers and *Tiarella*, *Smilacina* and the Tufted Pansies. At the front edge also there may be Polypody Fern, and back among the flowers other of the hardy kinds—Male Fern and Lady Fern, the beautiful Dilated Shield Fern.

the Prickly Shield Fern that remains green and in good order throughout the winter, and goodly tufts of Hart's-tongue, happiest in soils containing loam or lime.

DAFFODIL NOTES

BY THE REV. JOSEPH JACOB.

Daffodils at the Royal Horticultural Society's Forced Bulb Show.—There were, comparatively speaking, very few Daffodils to be seen in the Hall on March 14 and 15. Their number constituted a low-water mark for this show. It was at one time a little doubtful if the requisite number of committee men could be found to make a quorum, but by requisitioning the services of Mr. Hudson, who as a Council man is an ex-officio member of all committees, we were enabled to meet and do some business. Two awards were given, one to Pippin, from Messrs. Herbert Chapman, Limited, "for pots." It is a stiff, sturdy grower, not too free, and with a small, shapely bloom which might be described as a Princess Mary, but with a less expanded orange red cup. The other award went to Sparkler, "for market purposes." It was shown by Messrs. Barr and Sons, and the three vases which were exposed at the top of the right-hand side of their group must have left no doubt in anyone's mind about it making "a good market bunch." Sparkler is one of the familiar M. J. Berkeley seedling type with a fine, large, bright orange red cup and a poor henpecked, frightened-looking perianth.

At this meeting a discussion took place upon the advisability of the committee meeting earlier in the year than heretofore. A resolution was ultimately proposed, seconded and carried *nem. con.*, asking the Council to call the committee together on and from the day of the annual general meeting in February in 1917. A hope was expressed that a general effort would be made by those interested in Daffodils to produce on the above-mentioned date something worthy of the occasion. Daffodils are much more valuable in the second week of February than they are a month later. This reminds me of the strong claims that the beautiful Diana and the free, deep red cupped Robert Browning could put forward for recognition at this early date. I had grand pots of them in mid-February this year. Blackwell is probably better than either. Were it to be described as the Barrii conspicuus of glass-houses, it would be a description in nowise untrue.

Early Flowers in 1916.—So far (March 18) the few noticeable ones have nearly all come from Messrs. Barr and Sons' Penzance garden. Yorick, a shapely pointed perianthed Nelson yellow Ajax,

was exhibited both on March 7 and March 14. It is a fairly large bloom, quite a self, and distinguished by its lovely colouring and the smooth-looking texture of its perianth.

Brian (Barr).—A medium-sized deep yellow Ajax with a perianth a good deal like that of the old obvallaris, and set in a similar way at right angles to the trumpet. Were this flower a woman, one would say it had "good style."

Shylock (Barr).—To "do" a garden thoroughly, two things are to be desired: one, the opportunity to have a good look round alone; the other, the felicity of being personally conducted about by the owner or the owner's representative. I

of St. Martin's, Guernsey, from the parent bulb of which there came an ordinary typical bloom, while the offset produced one in which the edge or brim of the trumpet had become thickened and crinkled in a very marked and regular manner, the perianth remaining as in a normal flower. I have handled, through the kindness of Mr. W. Mauger of Les Rosiers, a small bunch of this novelty, and although the flowers were too far gone to do themselves justice, the general impression they produced was a very pleasing one, which is certainly not always the case, as I seem to remember several instances where the effect of this thickening has been rather the reverse.

Fusarium.—I am afraid that this deadly fungus is gaining ground. Unfortunately, our knowledge of its ways is not as full as it might be. The general view is that the leaves are first attacked and that it spreads downwards, and as a result the bulb becomes affected. It then spreads by the basal attachments to the offsets, and the whole plant becomes a mass of corruption. Jeremiah's job in Jerusalem was not a pleasant one; neither is mine; and yet it is the height of folly for us to cry "Peace" when there is no peace. The enemy is at the gate, and it is only by a strong pull, a long pull and a pull all together that we can hope to successfully repel his attacks. The "Daffodil Year Book for 1915" has been the unwitting means of producing some very interesting philippics between Mr. Engleheart and "A Novice." I hope these two people will forgive me when I say that great as is the interest attached to the subject of pollination, it cannot be compared with that which is bound up with Fusarium. The one is that of the connoisseur; the other, the grim reality which our hypothetical friend, "the man in the street," has to reckon with.

I have recently heard of a garden where up to a month or six weeks ago Fusarium was unknown. A bed of Mme. Plemp was planted in the autumn of 1914. The plants bloomed profusely and gave good flowers in 1915. A short time since gaps were noted, and these were so numerous that the whole of the plants are now pulled up and thrown away (so my correspondent writes. I would certainly have advised burning). Suppose this is really Fusarium—and from analogous cases which have been brought to my notice it might be—how came that Fusarium there? Can the beginnings of Fusarium be present in bulbs in the autumn of 1914, and (supposing the bulbs are not taken up in 1915) can it be possible that the first notice we get of its presence is ominous gaps in 1916, when the young leaves are pushing through the soil? This is but one puzzle out of many. May I hope that some of our readers will record their experiences, for "in the multitude of counsellors there is wisdom."



NARCISSUS SHYLOCK, A NEW SEEDLING WITH A FIMBRIATED TRUMPET.

would have missed Shylock had not Mr. P. R. Barr pointed out the curious formation of the brim of its trumpet. To begin with, it is deeply and evenly gashed, like we find in the trumpet of Beethoven; while the scallops between are finely and regularly toothed like a small meat saw.

Daffodil Sports.—The Narcissus family is not a "sporting" one. Few and far between are the authenticated instances of bud breaks in the Daffodil. It is therefore of exceptional interest to be able to record one about which there is no doubt and which has remained permanent. In the year 1909 or 1910 a plant of Golden Spur was observed in the garden of Mr. H. M. Harris

NOTES FROM MYDDELTON HOUSE GARDEN

By E. A. BOWLES, M.A., F.L.S.

ST. PATRICK'S DAY has come, the snow has gone, and two warm days have worked wonders among the flowers. The Almonds burst into rosy beauty almost as suddenly as Aaron's Rod. *Stachyurus chinensis* looks as though some child had stuck the flowers of *Berberis japonica* on to its drooping flower spikes, and *Corylopsis pauciflora*'s flowers are so much like pale Cowslips that they also look as though some playful trick had placed them on the thin brown twigs instead of succulent stalks. Though the season began as such an early one, it is now rather behind time. The Crocuses rightly due in the early weeks of February, were mostly ruined, beaten to pulp by the rains of January; but the Dutch Yellow, and the garden varieties of *vernus*, often at their best by the first day of March, are still hanging back. A fine day or two should bring two of the best forms of *vernus* to their full beauty, and they have already transformed the bare brown soil of the shrubberies they reside in to a carpet of lavender tints. They are Margot and Maximilian, both so much like enlarged forms of *C. Tommasinianus* that I think there must be a trace of it in their parentage. They are strong growers and seem quite able to look after themselves if treated fairly and planted in well-dug ground for a start. Margot has the larger flower and is grey lightly veined with lilac as a closed flower, but warm rosy lilac, with a narrow white margin to the segments, when open, and this little edging gives a wonderfully pleasing and dainty finish to the flowers. Maximilian is more self coloured and therefore more pleasing when in bud, and its colour is a cooler, bluer shade, better described as lavender than lilac, but not too blue to blend very pleasantly with Margot's warmer tone. Both of them are delightful as an undergrowth for deciduous shrubs, and I add a few yearly to my planting, and hope some day to see that shrubbery filled with them, winding about between the clumps of Daffodils that fill the more open spaces. I have put a few of the fine white *Crocus Kathleen Parlow* among them, and am pleased with the effect. It is the most purely white of any of the large forms of *C. vernus* I know, its only touch of colour being a very fine line of violet, no thicker than a hair, running up the centre of the inner segments, and only on their inner surface.

The Daffodils, too, are hanging back, and many seem to have remained as they were three weeks ago, the snow and cold rains putting them to sleep as effectually as the Bad Fairy did the Princess and her Court. However, the sun will soon act as Prince Charming and awaken them when he comes to them. Alert, that charming little trumpet of Tenby lineage, and Henry Irving were out before the snow came, and so bear traces of the troublous times they have gone through. Slugs nibble holes in them when their flowers are pressed down to the ground, and some bird pecks the unexpanded buds, as if sampling them, but finding them distasteful. Still, a peck or two at a Daffodil bud does a deal of damage.

One of the first to open its flowers was *minicycla*, a delightful little hybrid of *minimus* and *cyclamineus* raised by Mr. F. Herbert Chapman. He gave me a bulb of it some years

ago in exchange for some special Snowdrops, and I planted it in a sunny position in the lower slopes of the rock garden. It has grown into a little clump and is as charming as anything in flower now, looking no whit the worse for the wild weather, and still in good condition. It is likely to last for another week or more, for it has inherited the substance and lasting qualities of *cyclamineus* as well as its brilliant shade of yellow.

From *minimus* it derives two good points—the frilled edge of the trumpet and just enough

of the spreading character of the perianth segments to prevent their flying right back, as they do in *cyclamineus*, looking like an umbrella turned inside out by the wind. This position of the perianth in *cyclamineus* gives it a vicious expression to my eye, reminding me of a kicking horse with its ears laid back. In *minicycla* the perianth re-curves enough to give it a piquancy of expression, but in a graceful curve reminding me of a Martagon Lily.

The gayest mixture of colour in the garden is produced by a patch of *Erica carnea* by the side of some rocky steps and a self-spread colony of *Chionodoxa* above and below it, and yet another on the other side of the steps. It has come about by chance, for I planted *Scilla bifolia* in some carpets of various Thymes close to the *Erica*, and two or three bulbs of the *Chionodoxa* were mixed among them. When they flowered I thought their brilliant blue was rather too strong as a pleasing neighbour for the crimson Heath, and I meant to dig them up. They were forgotten, though, and seeded, and now it would be far easier to dig up the Heath than the *Chionodoxas*. On the dull, wet days of this last week, this bright corner by the grey stone steps, backed by ever-green Brooms of many kinds, has been such a cheerful sight that all the plants deserve to be left undisturbed.

The last of the Snowdrops are now out. The most striking of them is the little form of mysterious

origin known as *Galanthus virens*. It appeared in the Vienna Botanic Garden and does not come true from seed, so that unless it appears somewhere else or is discovered growing wild, there seems little hope of tracing its lineage. It has been called a form of *caucasicus*, the Eastern *nivalis*, but I can see no trace of such relationship. Its charm lies in its greenness, the outer segments being



NARCISSUS MINICYCLA.

From a drawing by E. A. Bowles.

shaded with a soft duck's egg green, and the inner ones are wholly rich green with a narrow edging of white. A pretty form of *plicatus* given me by Mr. Ledger is always very late to bloom, and only hung its head yesterday. It has green shading on its outer segments in some

seasons, but is very unlike *virescens* in general build. Another *plicatus* form raised by Mr. Allen and called *Belated* always runs a race for which shall last longest with a large form of *Elwesii* I selected for a label of its own from some imported bulbs and in many seasons both last on into April. By then the Wood Anemones provide sheets of white flowers and the Snowdrops may depart without being missed.

Fritillaria askhabadensis is extra fine this season, and its pale greenish yellow bells and bright green leaves make one long for more. It has never increased here, and has so often been caught by spring frosts that I do not feel justified in purchasing others to share its hard fate. The still more beautiful yellow variety of Crown

MONTBRETIAS

In the cultivation of these very desirable autumn-flowering plants the majority of amateurs are content with the old-fashioned method of dividing the established clumps, and the divisions, too frequently replanted intact, give but indifferent results. A far better way, were it more generally known and adopted, is that of selecting only the larger corms,

intended complete separation of the units—and replanting on a fresh site in well-prepared ground are the remedies. Where a crowded condition is observed, it is best to lift the stock in autumn after flowering, dry off after the manner of *Gladioli*, if a little less severe, and replant in open weather early in the spring. The ensuing flowering will demonstrate that the enforced rest with change of soil has proved beneficial. Where the clumps were not so dealt with, the method and time of planting advocated above may be adopted with advantage.

For commercial purposes the *Montbretia* is lifted annually, and dry roots (corms) are sold and planted over an extended period. There is, however, "danger in delay," and the garden activity of the established examples proves the desire to be up and doing. Raisers of new varieties also lift and replant annually, though biennially or triennially would better suit the majority of small cultivators, for lifting—annual lifting, that is—is not essential. The *Montbretia*, while not fastidious, has a liking for calcareous soils. Excessive manuring is not necessary.

During recent years many additions have been made, *Star of the East*, *Prometheus*, *Norvic*, *Lord Nelson*, *Lady Hamilton* and *King Edmund* being some of them, though *George Davison*, an older variety, is still indispensable. E. H. JENKINS.

THE "DAFFODIL YEAR BOOK"

BY THE REV. G. H. ENGLEHEART, V.M.H.

THIS lengthy correspondence began with "Novice's" criticism of my review of this book. The usual literary rule is that the reviewer replies once and finally. I did not claim this privilege, for the discussion bid fair to elicit points of general

interest. But my pen now takes leave of "Novice" with something of an apology for having adventured myself against the erudition of one who is obviously a past master of a subject in which I have but dabbled for some thirty years. But I have an excuse in the cover he chose for his anonymity. It is perhaps somewhat disingenuous for a professor to call himself a novice. I am not surprised at his brushing me aside; I am only too well aware of the scantiness or, indeed, absence of positive knowledge in my life's gleanings. But along with me he has swept away the late eminent Cambridge Professor of Physiology, Kerner's monumental volumes, and with them the most recent German and American text-books, and, lastly, the signposts of Nature herself, who has drawn a quite clear demarcation between plants wind fertilised and others. Surely a record not out score for a novice! Nevertheless, he loses some points when he descends to the poor device of attributing anger and cloudiness of

FRITILLARIA ASKHABADENSIS.

(Natural size.)

with their often attached underground shoots, and, separating them by an inch or 2 inches, replant them over an increased ground area. In this way not only is every corm given the opportunity of playing its part and playing it well, but, by being individualised, as it were, later assumes a greatly increased vigour, with all that is good at flowering-time following in its train.

Imperial, introduced a few years since from Chitral, has never flowered satisfactorily here, and has dwindled so sadly, even in my warmest border, that I fear it will never be of use for this garden. Does it grow well and escape the early frosts anywhere in England? It would be pleasant to learn of any treatment that suits it, and might ensure success with *F. chitralensis* here.

Planted in the old way, often because of thoughtlessness and the plenitude of material existing, only the stronger examples flower at all, and these not possessed of anything like the vigour they should have. Clustering together naturally, those permanently planted in the garden soon become dense tufts of growths, the good flowering of which is next to impossible. In such circumstances, division—by which is

words to his correspondent. The cloudiness is rather in a question-begging phrase such as "the alleged exception of the Narcissus from the general rule as to the wind-carrying of the pollen." These words either mean nothing or that plants are generally, *i.e.*, nearly always wind fertilised, which is untrue. Here I am led to another apology. I rashly asserted that structural science could achieve what "Novice" declared impossible and prove the two negatives that cows are not carnivorous and Daffodils not anemophilous. But I now understand that cows can be carnivorous and Daffodils wind fertilised *for controversial purposes*. My last word, however, is not apologetic. "Novice's" further instalment

of either or both—and no doubt did so revert to the whiter ancestral blood. But it could revert only to pure Ajax, and the flower's entire purity of Ajax character is a common-sense certainty.

DAFFODILS NATURALISED IN GRASS

DURING the next few weeks many open spots in the woodland, just where the wild garden merges into that of the more orderly parts, will be exceedingly pleasant to behold by reason of the dancing,

one found that four or five bulbs had been planted under each tree and in such positions that they formed a square, and a necessarily puny one at that. Bold groups with irregular outlines, connected with each other by a few odd plants, dropped at long and short intervals as one might conceivably find them in Nature, are absolutely essential for this phase of Daffodil culture, and the wider the woodland expanse, the larger should be the groups. Generally speaking, the best results are obtained by using varieties separately or, at least, those sorts together of similar appearance. Thus, one with a large trumpet ought not to be mixed with the small-cupped varieties, nor would we like to see the Poet's Narcissus freely inter-



DAFFODILS NATURALISED IN A GRASSY SLOPE.

about White Emperor is, I fear, mere word-spinning to get out of a controversial pit which he dug for himself. The Royal Horticultural Society's measurements were not meant to override what may be called common-sense certainties—or, if they were, then an amalgamation with Colney Hatch would effect an economy. White Emperor, to repeat its history precisely, was a seedling out of J. B. M. Camm by pollen of Mme. de Graaff, both being grown under glass with nothing but a few pure trumpets, and when no Daffodil was in flower elsewhere. No one, unless for empty argument, could suppose that there is any element but pure Ajax in either of these parents. Their progeny could *revert* to the ancestral elements

golden-hued Daffodils naturalised there. The word naturalised is here used in its widest sense, inasmuch as few Daffodils are so much naturalised as to reproduce themselves freely from seed, yet they do undoubtedly flourish and increase by the vegetative process of bulbous offsets. It is at this season, when the plants are in full flower, that we can learn lessons that ought either to be committed to memory or the garden diary, to be made use of when planting-time arrives in September, October or November next. It seems almost superfluous to add that natural, *i.e.*, informal, effects should always be striven after, yet last year in the Temple Gardens alongside the Embankment, of all places,

spersed with either. Notes made at Kew a few days ago showed that the following varieties were doing well in grass, and enquiries elicited the fact that most of them had been planted several years and were steadily increasing—Emperor, Empress, Golden Spur, Horsfieldii, Henry Irving, Narcissus Poeticus (in the damper places), the old double yellow Telamonius plenus and Barrii conspicuous. The accompanying illustration gives some idea of the beautiful effect obtained by the judicious planting of suitable varieties in a grass slope beyond a churchyard, where overhead shade is not too heavy and the soil not impoverished by shallow-rooting trees. The leaves of the bulbs must not be removed until they have naturally turned yellow.

MUNICIPAL ROSE GARDENS

I.—AVERY HILL, ELTHAM

BY A MEMBER OF THE COMMITTEE OF THE CITY OF LONDON ROSE SOCIETY.

JUST far enough from the City to escape most of its gloom and smoke, and yet not too far for a leisurely half day's visit—the station is Shooter's Hill, and a motor-bus service passes close to the gates—the gardens and grounds at Avery Hill, Eltham, are a London asset all too little known to many of her citizens, and their ownership all too little recognised. For these gardens belong to us—all of us—through our own particular County Council, which watches with such a wise and paternal eye over the innumerable interests of our many-sided lives. The useful and the beautiful are in combination at Avery Hill. A teachers' training college is established in the house—but lately the palace of a multi-millionaire—and a large portion of the grounds is devoted to a propagating garden for the Council's many parks

superintendent, Mr. E. Gibson—from whom we have received the greatest assistance—a depth of $2\frac{1}{2}$ feet being excavated, and well-broken clay, cow-manure and top spit from the flower borders incorporated, all the materials being at hand. Our time was short, as a start was only made towards the middle of January; but by the time March arrived the garden was made and planted, thanks largely to the kindly nature of the soil—a boon we do not possess in some of our other gardens; but that is another story! Much time and thought had been expended on the colour scheme and selection of varieties; but it is one thing to plan for the pick of the bedding Roses, and quite another to get our colour sonatas executed by our friends the nurserymen. Nevertheless, we have little to regret in the finished scheme, and if some of the old favourites have

and J. B. Clark (No. 13), which it is intended to partly peg down. Four weeping standards—Excelsa (Nos. 2 and 12) and Coronation (Nos. 4 and 14)—complete this lawn.

On the lower terrace circular beds of white Dwarf Polyanthas—Lady Violet Henderson (Nos. 16 and 20), Katherine Zeimet (No. 30) and Jeanne d'Arc (No. 26)—mark the corners. The centre consists of a large diamond-shaped bed of Frau Karl Druschki (No. 23), and flanking this bed are four large rectangular beds of Souvenir de Pierre Notting (No. 19), Rayon d'Or (No. 17), Mme. Pernet-Ducher (No. 27) and a bed of Gorgeous (No. 29), quite a new variety, which should create something of a sensation when in bloom in July. The two diamond-shaped beds at the ends are planted with Mrs. Herbert Stevens (No. 22) and Molly Sharman Crawford (No. 24); and weeping standards of Alberic Barbier (Nos. 18, 21, 25 and 28) in the centres on each side.

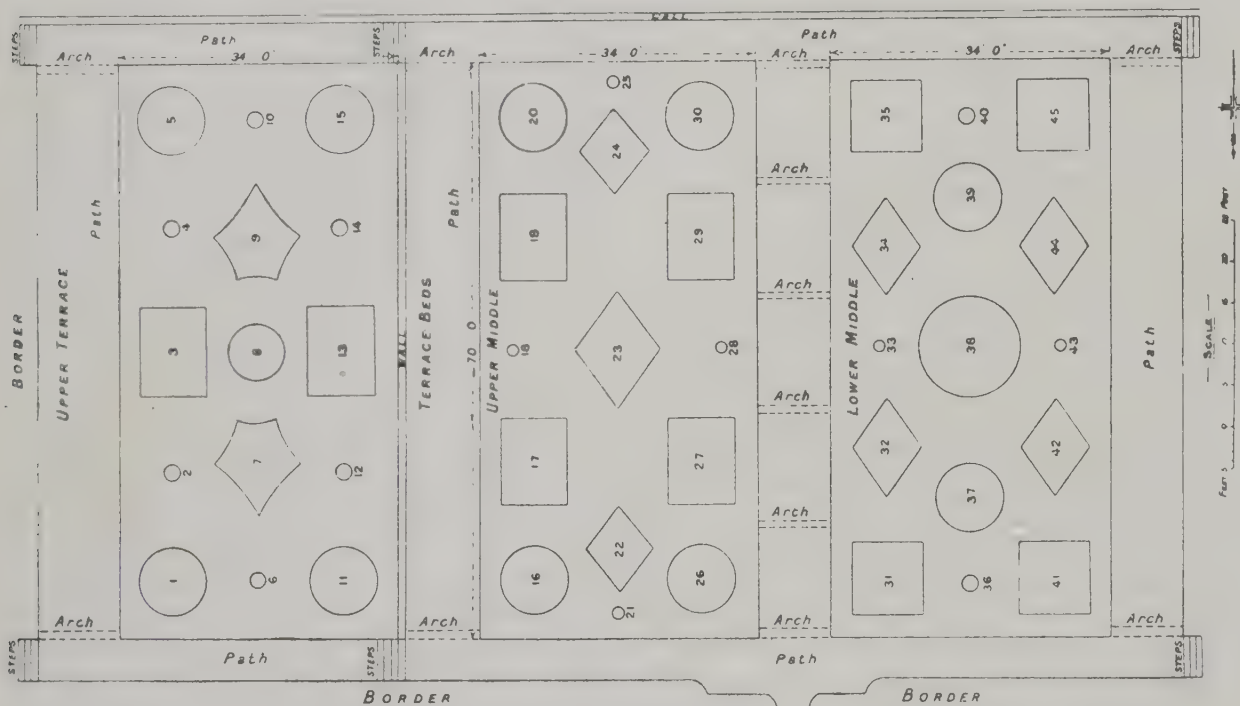
In the pink garden, over the large centre bed Zephyrine Drouhin (No. 38) is to be left to run riot, and circular beds of Dwarf Polyanthas Ellen Poulsen (No. 39) and Mrs. Cutbush (No. 37) are planted above and below it. Four diamond-shaped beds flank it with light pink Hybrid Teas Viscountess Folkestone (No. 42), Augustine Guinoisseau (No. 32), Lady Ursula (No. 44) and Lady Pirrie (No. 34), and the four square corner beds are filled with Willowmere (No. 35), Countess of Gosford (No. 45), Mme. Edouard Herriot (No. 41) and Josephine Nicholson (No. 31), the latter being the coral pink Lady Ashtown.

The weeping standards on this lawn are Léontine Gervais (Nos. 33, 36, 40 and 43), and the arches between the white and pink lawns are alternately The Garland and Blush Rambler.

For all the Roses before enumerated we have to thank the many Rose-growing firms who have so willingly and heartily co-operated with us in fulfilling their part of the scheme. Temperaments differ, of course, and a small minority of those we have approached have not been favourably inclined, but in the main the reception of the scheme from the nurseryman's side has been in every way encouraging. Here at Avery Hill Mr. George Prince of Longworth has alone presented more than 600 plants, every one of splendid quality and a worthy example of the famous Longworth nursery. Some much-worried members of our sub-committee, driven desperate by attempts to co-ordinate the various offers by correspondence, spent a day with Mr. Prince down at Longworth, and they know what that nursery can do! Then Mr. Will Tayler of Hampton and Messrs. Burch, the well-known Peterborough firm, have filled several beds; while from Ireland have come some splendid new varieties sent by Messrs. Alex. Dickson and Sons and Messrs. Hugh Dickson from those wonderful nurseries at Newtownards and Belfast.

So, in pleasant partnership, has this little Rose garden been established, one of the first-fruits of our scheme, and destined, we hope and believe, to prove a beginning only, with greater glories to come. There is a wide sweep of lawn on the south front, gently sloping, with a fair and far prospect over the sunny Kentish fields, upon which our envious eyes have been cast, and here, perchance, some day, when the war is no more and a benevolent County Council gives the word, may grow a Rose garden approaching more nearly to "the garden of our dreams," and not altogether unworthy of being linked with the name of the greatest city in the world.

OXFORD.



PLAN OF ROSE GARDEN AT AVERY HILL, ELTHAM.

and open spaces; while a stately winter garden and summer delights of flower and tree are also here for the enjoyment of all. In such an ideal situation we, of the City of London Rose Society, felt it particularly fitting that one of our first efforts in municipal Rose gardening should be established. Our scheme came before the Council at an opportune time, when necessitous economy dictated the abandonment of much spring and summer bedding, and our proposals were considered and speedily agreed to by the energetic officials of the Parks Department, to whom our most cordial thanks are due for their hearty co-operation and interest.

Tucked away at the south-west corner of the mansion is a delightful little terraced garden, sunny and yet sheltered, and here, within the limits of our scheme, we were allowed to start work. The beds were already cut in the turf, and this much simplified our arrangements, planning being eliminated, and only preparation and planting being necessary. The beds were well "done" under the direction of the able

found a place, do they not deserve to be favourites? By referring to the plan it will be seen that the upper terrace is divided by a dwarf wall from the lower terrace, which is again divided into two by a series of Rose arches. The colour scheme which was originally decided upon (and which has, as far as possible, been adhered to) was as follows:

The top terrace to be all red Roses; the beds immediately below it to be white, shading off to yellows, and gradually working up to pinks in the further beds. There were three old plants in the top terrace which had grown magnificently, one a pillar of Crimson Rambler (No. 8) and the others pillars of Dorothy Perkins (Nos. 6 and 10), and although the latter did not assist the colour scheme, it was decided not to move such beautiful specimens.

The upper terrace consists of Jessie (No. 5), Erna Teschendorff (No. 11), Papa Hemery (No. 15), President Taft (No. 1), Marquis of Salisbury (No. 7) and Red Letter Day (No. 9); while flanking the Crimson Rambler are beds of Hugh Dickson (No. 3)

HOW TO FLOWER ROSE GLOIRE DE CHEDANE GUINOISSEAU

[This article is written by Mr. Edward Mawley, V.M.H., in reply to a correspondent who wishes to know how best to succeed in flowering for exhibition purposes this beautiful crimson Rose, which, strange to say, the National Rose Society recommends for general garden purposes.—ED.]

ALTHOUGH I no longer grow Roses for exhibition, I, too, have found great difficulty in inducing this strong-growing but shy-blooming Rose to flower at all. I accordingly wrote to some of my experienced Rose growing friends, both amateurs and nurserymen, asking them what treatment it should, in their opinion, receive in order to coax a few blooms each year from it. All my correspondents are among our leading exhibitors, and hail from widely different parts of the British Isles. Their opinions are therefore well worth having.

One of my correspondents writes: "I have a good many plants of Gloire de Chédane Guinoisseau, but have been unable to cut a single bloom worth calling a Rose, and am seriously thinking of doing away with it." Another considers it "best for exhibition purposes grown the first year from the bud." He adds: "We get plenty of flowers, but it must not be cut back hard." Another friend writes: "I find this Rose very shy in flowering." He further says: "Many of these strong-growing varieties seem to forget their aim in life, but, when their shoots are bent down, it appears to dawn on them that some flowers are expected of them."

After reading the above, the majority of readers will, I feel sure, agree that it must be a very disappointing Rose to grow. The question is: Is it worth while devoting so much time, space and trouble on a Rose like this, when there are so many other beautiful varieties which show more gratitude for the care bestowed upon them?

On the other hand, I can fully sympathise with your enthusiastic correspondent and others like him who are fond of overcoming difficulties and do not like to be beaten. With his knowledge of Rose-growing he will, no doubt, be able to glean some helpful information from the foregoing experiences of experts, which will enable him ultimately to obtain some fine blooms. There is one great thing in its favour: it is a healthy and strong-growing Rose.

Gloire de Chédane Guinoisseau was raised by Chédane Guinoisseau, who sent it out in 1907, and it soon took a good position as an exhibition Rose. According to my "Rose Analysis for 1914" it was in that year staged in as many as

twenty-nine prize stands at the National Rose Society's leading exhibition, and appeared among the first twelve Roses in the list of Hybrid Perpetuals and Hybrid Teas.

BORDER CARNATIONS

By J. L. GIBSON.

I WAS pleased to see Mr. Morton's notes of criticism in the issue of the 26th ult. regarding my selection of yellow ground Picotees. He thinks I made a mistake in saying that the Midland-raised Picotees were weak in ground

to which I have drawn attention. The very fact, acknowledged on every hand, that Eclipse is a constitutional weakling with an excellent bloom condemns it—not, I grant, from the exhibitor's point of view, but in the eyes of the great number of Carnation lovers who do not show their flowers; and it must be borne in mind that these articles are not for the delectation of the past master in the cult, but for readers of THE GARDEN seeking for information. I do not think I am making a mistake when I say that the raiser of Eclipse describes it in his own catalogue as useful for exhibition purposes only. Another critic takes exception to my inclusion of Agnes and Peter

Pan, describing the first named as not good enough to go into any dozen select Picotees. Not only are Agnes and Peter Pan among the very best Picotees for border cultivation, but both appeared in Mr. Douglas' winning stand at Vincent Square last July, which is a double proof that these two varieties very well earn the position given them in my list. Moreover, they have stood the test of outdoor culture for at least half a dozen years, and show better stamina there than Eclipse ever did under glass. There seems to be a tendency among exhibiting Carnation growers to criticise only from an exhibitor's point of view, and to a great extent this is very natural; but it must not be overlooked that ninety-five out of every hundred growers at least never think of exhibiting, but enjoy their flowers purely as amateur gardeners, for the sheer love of beauty and fragrance. It would be very interesting to have the views and experiences of others who have grown Picotees as to the habits and behaviour of their plants both in the open and under glass. I think the majority would agree with me that stamina in these particular plants is a very strong point, for it would be a great pity if such lovely flowers were denied to those who possess no greenhouse.

I promised to say something about potting up for growing Carnations indoors, and this important work should be taken in hand at once if not already done. A useful compost can be made up with four parts turfy loam, one and a half leaf-mould

and one and a half well-decayed manure, sufficient silver sand or crushed oyster shell being added to make the whole porous. These ingredients should be thoroughly mixed a week or so before being used, and, if desired, a 6-inch potful of bone-meal may be added to each barrow-load of compost. The loam should not be broken up too finely, and the more fibrous it is the better. Two plants will do very well in a 7-inch pot, or three in an 8-inch. Good drainage is essential, as abundant water must be given in hot weather, and Carnations are impatient of a sour or waterlogged soil. Over the crocks a layer of fibrous material will keep the soil from washing down to the bottom of the pot.



AN EXHIBITION BLOOM OF ROSE GLOIRE DE CHEDANE
GUINOISSEAU.

colour, and that it would have been more correct to describe the marginal markings as weak and uncertain. Well, I know from experience that the ground colour is weak in many of these flowers, but the poor edge colour applies only to the wire-edged varieties; the heavy-edged section shows no such disqualification. As to Mr. Morton's remarks on the variety Eclipse, I approach this vexed question again with full deference to my critic, who is a most successful amateur cultivator and exhibitor. I am not an exhibitor, but I see, as a looker-on, a good deal of the game, and I shall be surprised to a considerable extent if Mr. Morton does not find the weakness this summer

Then a handful of the lumpier portions of the compost should be added and thumped well down with a rammer.

All through the material must be well pressed down and made very firm, as this tends to encourage the formation of fine root fibres, which particularly nourish both bloom and seed vessels, if the latter are required. Where they can be procured, lumps of old mortar make desirable provision for drainage, instead of crocks. I remember once securing a sackful of this stuff from a dismantled building. The flat pieces from the plaster walls and ceilings fitted in nicely at the bottom of the pots, and when I was shaking out the old plants the following autumn I found these lumps of lime rubble held tightly together by a mass of intricate roots growing much more thickly than they usually do round the fragments of old pots commonly utilised for drainage. After potting, the plants will not need much attention for the next month or six weeks, but watering should be attended to with care meanwhile, as the soil is better to be slightly on the dry side till the pots begin to fill with roots. The plants will spindle for bloom sooner or later, according to the weather, but staking should not be left undone after, say, mid-April. Thin Bamboo canes are best; if painted green they are not obtrusive, and they last for several years. Border Carnations are grown to perfection in an absolutely cold house with abundant ventilation and open to full sun. Only when the bloom buds begin to open need the glass be shaded, for all the Dianthus family are real sun worshippers; but a softening of the solar rays when the flowers are out preserves the colour and lengthens the life of the blooms.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Kitchen Garden.

Vegetable Marrows.—Where frame accommodation can be spared, a sowing may now be made. The seeds should be placed singly in 3-inch pots and put in a warm house until germination has taken place.

Broad Beans.—A further sowing should be made, and the soil between those already through the ground may be hoed whenever the weather is favourable. Peas may also be sown for succession.

Fruit Under Glass.

Melons.—As these develop, due attention must be given to the pinching of all young shoots, but do not remove any of the matured leaves, as these will assist in the proper development of the fruits. When these are set and swelling freely, a watering with liquid manure occasionally will be beneficial. Keep the atmosphere moist and admit air when the elements are favourable, but a certain amount of discretion must be exercised. When the fruits begin to colour, the water supply must be reduced gradually, more air admitted, and the atmosphere kept less moist than hitherto.

The Flower Garden.

Gladioli.—These showy bulbous plants are now very popular, and at this season they may be planted in beds or as clumps in borders. Some growers start them in boxes, but it is not really necessary. There are a host of hybrids to select from, but the varieties of *Gladiolus brenchleyensis* are still in the front rank.

Liliums.—Various Lilies, such as *L. auratum* and the varieties of *L. speciosum*, may also be planted, and they look exceedingly well among Rhododendrons and other peat-loving plants.

Bamboos, which are a feature of some gardens, may be planted during this month. As a general

rule they enjoy a position sheltered from cold winds and partial shade, but the latter is not essential if the soil is loamy and of a retentive nature. Large clumps that have become crowded may with advantage have some of their growths cut out.

Plants Under Glass.

Euphorbia jacquiniæflora.—The stock plants, having received a partial rest, will now be furnished with young shoots suitable for cuttings. These should be removed with a heel of the old wood attached, and after a few hours' delay to allow the milky sap to dry up they may be inserted in pots filled with sandy soil. A brisk bottom-heat or a warm, moist propagating-frame is necessary. The cuttings may either be placed singly or three in each pot, the latter being potted on without any disturbance. When rooted, gradually inure them to the atmosphere of the house. Cuttings of *E. (Poinsettia) pulcherrima* should be inserted as they become ready, and treated similar to *E. jacquiniæflora*.

Begonia Gloire de Lorraine.—The stock plants of this useful Begonia should be encouraged to produce cuttings by placing them in the warm house and keeping the surroundings moist. Basal cuttings make the best plants, and when they are 2 inches or 3 inches long they should be placed in small pots filled with a little loam, leaf-mould and sand. If kept shaded and sprayed over, they will readily form roots. The other winter-flowering Begonias may also be propagated during this month.

The Hardy Fruit Garden.

Peaches and Nectarines.—Disbudding may begin directly the shoots are large enough for removal. To avoid any check, a portion of the tree should be disbudded at one time, and for preference commence at the top of the tree. Overcrowding must be guarded against, and as a general rule a well-placed shoot should be left at the base of the current year's fruiting wood and another at the point. The future welfare of the tree must always be studied when any disbudding is done.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)
Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Kidney Beans.—A constant supply of these should be maintained. After this date, if a slightly heated pit can be afforded, better results will be obtained than from plants grown in pots, and they will not be so liable to attack from red spider and other insect pests. A light, rich mixture of three parts of loam to one part of leaf-mould to the depth of 6 inches or 9 inches will be sufficient. Add a little lime to the mixture, as this is often deficient. The surface of the soil should be, if possible, not more than 2 feet from the roof glass. Very little ventilation will be required until the seedlings appear, after which careful airing is necessary. Syringe the foliage twice daily in fine weather, and close the pit early in the afternoon to retain as much sun-heat as possible. A few stout twigs should be placed to prevent the plants falling over.

Mushrooms.—Beds of Mushrooms that are showing signs of exhaustion may be given a soaking of tepid water to which a little salt has been added. Those entirely past may be cleared out and the material used for top-dressing flower borders or beds, or mixed with soil for growing on various bedding plants. A bed may still be made, but at this season, if room is limited in the Mushroom-house, an outhouse may be utilised successfully, or even made up in the open. If the latter, the bed must have a sharp slope and be thickly covered with litter.

Asparagus.—The growth of this vegetable will be benefited by giving the beds a dressing of common salt. New plantations may now be made, using either one or two year old crowns. A sowing may also be made at this season, either in lines, from which the young plants can be transplanted, or, as some growers prefer, on prepared beds where they are intended to be permanent.

The Hardy Fruit Garden.

Grafting.—The present is a good time for doing any grafting that is contemplated. This

is not an operation included in every gardener's calendar, but at times it is found necessary to replace some healthy but unfruitful Apple or Pear tree with a variety more suitable to the locality, and this can often be done more economically by grafting than rooting out the tree and replacing it with a young one from the nursery.

Mulehings that were placed over the roots of young fruit trees may now be removed, and the ground lightly forked over.

The Flower Garden.

Box Edgings.—Any blanks noticed in these should be filled up from the reserve or nursery garden, but where tree Boxwood is used, blanks will seldom occur. It is well, however, to have a small reserve of rooted cuttings in case of accidents. It will be quite safe to proceed with the clipping of Boxwood edgings now. The least touch of frost afterwards will, however, give them a scorched appearance, but this need not cause alarm, as young growth will soon cover up any unsightly parts. The clipping of these Boxwood edges may, I think, for a season be dispensed with altogether, especially where hands are scarce, without any real or permanent harm. This is one among many other items which I have decided to abandon for a season in order to cope with the times.

Sweet Violets.—If cuttings of these were taken in autumn and rooted in cold frames, there should be no difficulty in finding a sufficient quantity of young plants for planting out now. In our Northern climate these succeed well at the foot of a wall on either a south, east, or west exposure; but to keep them vigorous and healthy they must be renewed every second year. A change of soil, if not of situation, can be easily given if, when digging the adjoining border, an exchange of soil is made.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)
Glamis Castle, N.B.

A SELECTION OF VEGETABLES

IN the cultivation of vegetables so much depends upon having desirable varieties to obtain the best results. No more cultural detail is necessary to grow superior sorts than inferior ones, and as we now have an immense variety to choose from, there is little excuse for those who at the end of the season say, "I wish I had grown such-and-such a Pea or Onion; that sort I grew was a failure." To the inexperienced the selection of superior varieties is not always easy; therefore, as I write for the benefit of those who do not know, that is my excuse in compiling a list of the various kinds of vegetables.

Broad Beans.—Exhibition Longpod produces huge crops of Beans of good flavour. Giant Windsor has a short pod, but the Beans are large and of excellent flavour.

French Beans.—For forcing, Superlative and Forcing are desirable. For open-air culture it is difficult to obtain a better sort than a good selection of Canadian Wonder, or Masterpiece and Perpetual.

Climbing French Beans are useful in some instances, as they produce huge crops of desirable pods. Fillbasket or July Climbing are both good sorts.

Runner Beans.—Prizewinner, Best of All or Scarlet Emperor will, under fairly favourable conditions, produce huge crops of succulent pods oftentimes measuring as much as 15 inches or more in length.

Asparagus.—One variety is sufficient for the largest garden. There is no better sort than Giant French.

Beet.—A good selection of Blood Red is sufficient for any garden, although Cheltenham Greentop may produce a heavier crop, with Globe as an improvement on the ordinary Egyptian Turnip-rooted variety in that section.

Broccoli.—For autumn use, succeeding late summer Cauliflowers, Michaelmas White is good, to be followed by Superb Early White, Christmas White and Winter Mammoth. For late spring use Leamington, Knight's Protecting, Late Queen and Model are still desirable. Purple and White Sprouting are both much appreciated, as they are so hardy and produce huge crops.

Brussels Sprouts.—In a somewhat large garden three varieties provide all that is necessary; in small gardens one variety is ample. Exhibition is an excellent variety in every respect. Dwarf Gem gives an early crop of good Sprouts. For small, neat, firm and highly flavoured Sprouts, Scrymger's Giant still deserves a place. I know of no vegetable, though, upon which cultivation has such an effect both in quantity and quality of the crop.

Cabbage.—One firm catalogues no fewer than two dozen varieties. Harbinger, Ellam's, Springtide, Flower of Spring and New Leader are excellent varieties for autumn sowing. I have for the last two years grown the Birmingham Market Cabbage, which comes to maturity during December and in January, when it is much appreciated. For a small garden Harbinger is desirable.

Savoys.—Perfection and Early Ulm for general use. If a larger variety is required, Drumhead is desirable.

Cauliflower.—Magnum Bonum, Early Giant and Autumn Giant. For a small garden the first named will provide all requirements. For early spring sowing Purity is good.

Carrots.—For frames and early outdoor crops Early Gem and Scarlet Horn are good. For the general crop New Red Intermediate is preferable.

Celery.—Solid White and Aldenham Pink are good in their respective colours. Sulham Prize Pink for a small garden is a good general variety, keeping well into spring.

Lettuces.—In these there is an abundant choice. Cabbage: Favourite and Ideal for a summer supply, with All the Year Round for autumn sowing. Cos: Superb White and Champion Brown; Black-seeded Bath for autumn sowing.

Leeks.—Prizetaker for exhibition, with Improved Musselburgh for ordinary culture.

Vegetable Marrows.—Dainty, Tender and True, Long White and Long Green. Pen-y-byd for extra freedom in fruiting and good quality.

Onions.—No variety is better than Ailsa Craig in its true form where large bulbs are required. For general use Brown Globe and James' Long-keeping are still unbeaten. For autumn sowing White Leviathan and Giant Lemon Rocca.

Parsnips.—Tender and True or Student.

Spinach.—Long-standing and Round for summer, with Prickly for winter.

Tomatoes.—Red: Any good form of Perfection for exhibition, with Sunrise for the general crop. Outdoors: Holmes' Supreme and Up-to-Date. Yellow: Golden Perfection and Golden Nugget.

Turnips.—Snowball and Long White Forcing, with Early Red and White Milan for summer. All the Year Round and Orange Jelly for winter.

Peas.—First early: Early Giant, Pioneer, May Queen, The Pilot and Improved Ringleader. Second early: Duke of Albany, Edwin Beckett,

Quite Content, Stourbridge Marrow, Perfection and New Model. Late: Autocrat, Ne Plus Ultra, Gladstone, Late Queen and Goldfinder. *Swanmore.* E. MOLYNEUX.

RETIREMENT OF MR. EDWARD BULL FROM THE NURSERY BUSINESS

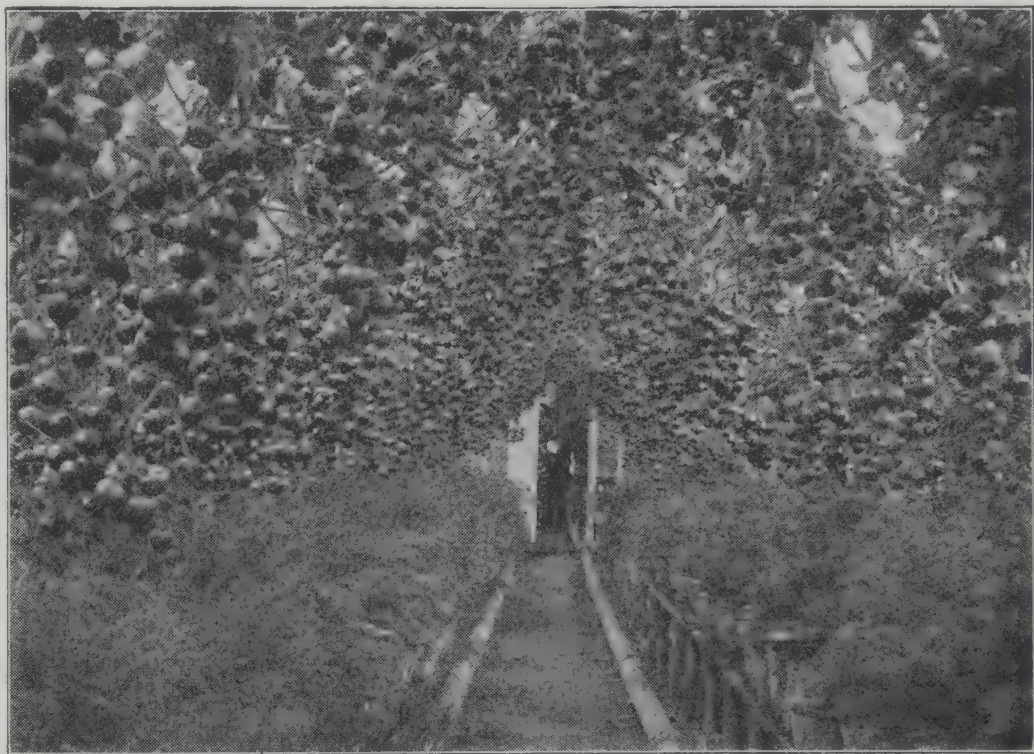
AT one time the prominent nurseries of London were many, being freely dotted around the outside circle of the great city. One by one, however, they have gradually passed away, owing in a great measure to the cultural difficulties becoming year by year more pronounced. The last to disappear is that which has for some time been carried on under the title of William Bull and Sons, but which was originally founded by the late Mr. William Bull, sen., in 1861. On his death in 1902 the business was left to the two sons, William and Edward, but after a time the elder retired in consequence of illness and soon died. In this way Mr. Edward Bull became sole proprietor, and has since then conducted the nursery business with marked success. He is, however, retiring therefrom on March 31, after a sale of the plants and most of the structures with which the ground is fully occupied. The reason of his retirement from the nursery business is that the firm's two specialities—Bull's Food for Plants and Bull's Fumigating Compound—are now so extensively used as to require the whole of his time and energies to be devoted to them. He will trade under the name of Bull's Plant Food Company, and the address will remain the same, namely, 536, King's Road, Chelsea.

In announcing the passing of this great firm, a word or two may well be given concerning its earlier days. At first Mr. William Bull, sen., largely specialised in soft-wooded plants, and great numbers of new varieties of Pelargoniums, Fuchsias, Verbenas and similar subjects emanated from the nursery. Fruiting Aucubas and hardy Ferns were also early specialities, and then in the late sixties the demand for stove foliage plants developed, and continued for some years. Mr. Bull took advantage of the popular taste, and through various foreign correspondents, as well as through the energies of his two collectors Shuttleworth and Carder, he was the means of introducing a vast number of different subjects, Crotons, Dieffenbachias

and Dracænas in particular. Orchids, too, were always favourites of Mr. Bull, and during the early eighties his annual Orchid exhibition, opening in May, was one of the features of the London season. It was visited by practically all the fashionable world. Since the death of Mr. Bull, sen., the energies of the firm have been largely devoted to the raising of seedling Orchids and the development of the collection of Hippeastrums (Amaryllis), which represented a very fine strain. Last year a charming group of these magnificent flowers was awarded a gold medal at the Chelsea Show.

Bull's Food for Plants was first manufactured by Mr. William Bull, sen., twenty-six years ago, for his use in the Chelsea Nurseries. It proved so eminently successful that he decided to give his clients the benefit of his experience and knowledge. It was soon thoroughly appreciated, not only by private gardeners, but by the largest and most successful market growers throughout the kingdom.

Bull's Fumigating Compound was first manufactured by Mr. Edward Bull. Its rise to popu-



A HEAVY CROP OF TOMATO BIDE'S RECRUIT.

larity has been phenomenal, and has proved so successful in the destruction of all insect pests in houses that this speciality is now widely distributed through the medium of seedsmen throughout the United Kingdom.

We sincerely wish Mr. Edward Bull continued prosperity in his undertaking.

A PROLIFIC TOMATO

It is an easy matter to raise a new Tomato, but to raise a variety that will earn great praise from both trade and private growers is quite another thing. And yet this may be said of Bide's Recruit, raised by Messrs. S. Bide and Sons, Farnham, Surrey, by crossing two already popular market varieties. The fruits are of medium size, perfect shape and very fleshy, averaging about eight fruits to a pound; but the remarkable feature is the immense crop that each plant is capable of carrying. The variety is being taken up extensively by market growers, and this is a reliable sign of its quality and heavy cropping propensities.

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

ADVICE ON VARIEGATED PELARGONIUMS (R. K., Tokyo).—Too much artistic licence has been indulged in for us to give the name of the variegated-leaved Geranium which forms the subject of the illustration sent. Certainly we have no Geranium—or, more properly, Pelargonium—with leaves showing both white and yellow variegation, as in the picture sent. There is so little demand for these plants that very few growers keep them in stock now. Nurserymen from whom they can be obtained are Messrs. H. Cannell and Sons, The Nurseries, Eynsford, Kent, and Messrs. H. B. May and Sons, Edmonton.

SUMMER-FLOWERING CHRYSANTHEMUMS (Mrs. B.).—Yes; Chrysanthemums may be planted in the beds after the spring-flowering subjects have been removed, instead of the ordinary summer bedding-out subjects. If the beds are free of plants, the end of April is a suitable time for planting to be done; but a month later will do nicely if you have strong young Chrysanthemums to put out then. If pink colours are preferred, select Gertie (salmon pink) and Provence (pink, with gold points and centre); or you may have Early Buttercup (golden yellow) and Tottie (reddish orange). Flowers would develop late in August and continue till the middle of October. The plants would cost about 2s. 6d. per dozen. They may be obtained from Messrs. W. Wells and Co., Merstham, Surrey; Messrs. J. W. Cole and Son, Peterborough; Mr. H. Woolman, Sandy Hill Nursery, Birmingham; or any firm advertising the plants in THE GARDEN.

TREES AND SHRUBS.

SHRUBS AND GRASS SEED (Woodland).—The Berberis sent for naming is *B. japonica*. It does not require regular pruning and, in fact, is better left unpruned altogether. When an occasional wild branch needs shortening, such work can be done in spring. The other shrub sent for examination is *Ægle sepiaria*. An ordinary hay seed mixture would answer very well to sow on the rough ground beneath your trees.

RHODODENDRON PRÆCOX (Mrs. J. H. B. F.).—*Rhododendron præcox* is usually met with as a shapely bush between 2½ feet and 4 feet in height. It may, of course, grow taller under certain conditions. *R. dauricum* is one of its parents. It is a much taller and less bushy plant, with smaller flowers that begin to open about Christmas, well in advance of those of *R. præcox*. The leaves of *R. dauricum* are deciduous, those of *R. præcox* strictly evergreen. There is, however, a variety of *R. dauricum* called *atrovirens* which has evergreen leaves, but they are much smaller than those of *R. præcox*.

FLOWERING SHRUBS AND ASTERS (J. H. S.).—Of the shrubs you might take *Berberis Darwinii*, *Buddleia variabilis Veitchiana*, *B. v. magnifica*, *Cerasus James H. Veitch*, *Eucryphia pinnatifolia*, *Forsythia intermedia*, *Pyrus Neidwetzkyana*, *P. Scheideckeri*, *Spiraea Thunbergii*, *Viburnum Carlesii*, *V. tomentosum Mariessii*, *Philadelphus purpureo-maculatus*, *Garrya elliptica* and *Buddleia globosa*. There are, of course, Lilacs, Weigelas and *Rhododendrons* galore, but those named are good and distinct. *Wistaria multijuga*, with 3 feet long racemes of flowers, is a plant to have if you have a place for it—pergola, bower or house wall. Good, early flowering border Chrysanthemums are *Bronze Goacher*, *Goacher's Terra-cotta*, *Goacher's Crimson*, *Horace Martin* (deep yellow), *Countess* (purest white), *Crimson Marie Massé*, *Framfield Early White*, *Mme. Desgranges*, *Piercy's Seedling* (orange), *Mme. E. Lefort* (orange and amber), *Roi des Blancs*, *Provence* (pink) and *Roi des Précoces* (crimson). Some good tall Asters are *Climax*, *Ryecroft Pink*, *William Bowman*, *Lil Fardell*, *Mrs. Rayner*, *Beauty of Colwall* (new, double blue), *Hon. Edith Gibbs*, *Novi-Belgii splendens*, *N.-B. Robert Parker*, *N.-B. Triumph*, *Top-sawyer* and *Thora*.

ROSE GARDEN.

ROSE LADY WATERLOW (A. de G. V.).—We are not surprised to hear this Rose has done so well with you as a standard, as, strangely, it blossoms more freely in this way than as a climber. But it will yield a goodly number of flowers grown as a climber, if you do not prune it much. Spread out the ripened growths in a fanlike manner, and cut back any lateral or side shoots to one or two eyes.

We advise you to withhold the fertiliser you name until you get the plants into a good flowering condition. When the flower-buds are seen, you may then apply it with safety.

PRUNING VARIOUS ROSES (J. G. F.).—If the varieties are established, the following should have about 12 inches to 18 inches of the ripened last year's growths retained: *Avoca*, *Hugh Dickson*, *J. B. Clark*; the following about 6 inches to 8 inches: *Dr. O'Donel Browne*, *George Dickson*, *King George V.*; and cut back the remainder to 3 inches or 4 inches. *Rayon d'Or*, if its wood comes through the winter uninjured, may be left practically unpruned, save for just the extreme ends; but if the pith of the wood appears brown, then cut back until you come to sound, white pith.

MISCELLANEOUS.

NAMES OF PLANTS.—Mrs. M. M. G., *Alloa*.—Tulip *Safrano*. As pale pink Tulips for forcing we advise: *Double*, *Murillo*; singles, *Rosa-Mundi* and *Rose Gris-de-lin*.—F. H., *Storrington*.—Probably *Tulipa Kaufmanniana*; specimen too far gone to recognise.—Nance, *Kent*.—Common Lungwort (*Pulmonaria officinalis*).—H. E. B., *Dorset*.—Both forms of *Narcissus Pseudonarcissus*, the larger one being var. *minor* and the other var. *nanus*. The blue flower is *Scilla bifolia*.

NAME OF FRUIT.—D. A.—Apple *Stamford Pippin*.

OBITUARY

DR. HECKEL.

THE death is announced of Dr. Edouard Heckel, Director of the Colonial Institute and Museum of Marseilles, at the age of seventy-three. He was born at Toulon in 1842, and began life as a chemist in the Navy. From that calling he passed to Professor of Botany at Nancy, Grenoble and Marseilles, and was greatly interested in the culture of Colonial plants. Among his other appointments he was Director of the Marseilles Botanic Garden, and a correspondent of many scientific societies. He was also President of the Horticultural Society of Marseilles. His contributions on the subject of medical botany, &c., were numerous and of great importance, his chief work being "*L'histoire médicale et pharmaceutique*." For his valuable researches and work in connection with these subjects he was made a Commander of the Legion of Honour.

GEORGE S. TITHERADGE.

In the New Zealand *Herald* of January 24 we read the sad news of the death of Mr. G. S. Titheradge in his sixty-eighth year. Mr. Titheradge was formerly a member of the Narcissus and Tulip Committee of the Royal Horticultural Society, and he will always be remembered as the man who "made" the Daffodil in Australia. To the outside world he was best known as an actor. He was a great favourite in Australia and New Zealand, where he spent most of his time since he left England in 1908. His portrait appeared in the "Daffodil Year Book," together with an appreciation, in which he is referred to as spending the afternoon of his life in his garden at Sydney surrounded by the flowers he loved so well.

RICHARD H. MEMLIN.

KENT has lost a prominent amateur by the death of the above gentleman on Friday, the 24th ult. It was his great hobby and his delight to get all the newest and best flowering shrubs, herbaceous and bulbous plants that could be purchased. He had an "eye" to spot any good thing, and that magical love touch that made them succeed in his gardens at Watlingtonbury. Here I first saw *Ostrowskia magnifica* blooming freely and *Fremontia californica* (hardy there) in full bloom. The garden was originally an orchard, and the old trees have been left and are draped with all the best climbing Roses—simply beautiful and unrestrained. In the grouping of herbaceous

flowering shrubs and bulbs he was a master artist. Whatever season you called in, there was a blaze, but so toned down that the eye rested with pleasure at every turn.

He was a liberal supporter of the gardening charities and threw his place open every Wednesday to the public, making a point of being at hand personally to answer questions and give information. In the fifties and sixties he was a foremost entomologist and one of the first to breed and rear the rarest species, and often contributed to the *Entomologists' Intelligencer*. As churchwarden, &c., he was a useful man in his parish, and will be sorely missed by many, including

GEORGE BUNYARD.

SOCIETIES

NATIONAL CHRYSANTHEMUM SOCIETY.

ON the 20th ult., at Carr's Restaurant, Strand, Mr. Percy Cragg gave his lecture entitled "Raising Seedling Chrysanthemums," which was, it will be remembered, one of the series of three educational lectures organised for the 1915 autumn season, but which, so far as Mr. Cragg's and Dr. Keeble's were concerned, had to be postponed on account of the police lighting regulations. The meeting opened at 7 p.m., and the first business was the moving of a vote of condolence by the chairman, Mr. D. B. Crane, to the family of the late Mr. William Wells, an old and valued supporter of the National Chrysanthemum Society for many years.

The lecturer then began his remarks with a very interesting and lucid account of the botanical structure of the Chrysanthemum and its reproductive organs. He then showed in a practical manner the preparations necessary for getting the flower-heads to seed, the means by which the seed could be matured and sown. He strongly urged the amateur to enter upon the fascinating work of seedling raising. Details were given showing how the singles were to be treated for this purpose, and how the other sections, notably the Japanese and Anemone, were to be dealt with. As a result of his own experience, many references to the various crosses he had himself made were given, and certainly excited the keenest interest among the audience. It would be impossible in the small space at our command to do full justice to Mr. Cragg's essentially practical and interesting paper, and in the subsequent discussion many questions were raised by quite a number of speakers, to each of whom the lecturer replied in the most satisfactory manner. Among the chief speakers were Mr. Mills of Croydon, Mr. Thomas Stevenson, Mr. Lingwood, Mr. Runciman, Mr. Rogers, Mr. Leech and Mr. T. Bevan.

Arising out of the discussion was the possibility of raising by seed sweet-scented varieties, old *Progne* being particularly referred to, a variety well known for its violet-scented odour. Several other subjects to which we cannot now refer were broached, and altogether the meeting must be regarded as one of the brightest and keenest horticultural gatherings of the kind we have ever attended.

A vote of thanks to the lecturer was proposed by Mr. Harman Payne, who commented upon the paper from the purely historical point of view and showed the impossibility of obtaining the older forms of the Chrysanthemum from which the present race had sprung. The motion was carried unanimously, and in returning thanks Mr. Cragg expressed the hope that any member who made experiments in the direction he had suggested should give the society at some future date the result of his knowledge and experience.

HIGHCLIFFE GARDENERS' ASSOCIATION.

A VERY interesting lecture on Professor W. B. Bottomley's *Researches on Bacterised Peat* was given by Mr. A. Machen, Windsor, before a good attendance of members of the above association at a recent meeting. Mr. J. B. Luckham, a vice-president, presided. Many photographs of plants treated with the peat, and others grown in the ordinary way, were shown on the screen; these were dealt with in detail by the lecturer, who explained the conditions under which they were grown by disinterested cultivators. The following were some of the main points of the lecture: The bacteria was easily killed and easily multiplied, and the aim of the cultivator should be to make the soil conditions suitable for their development and work. After the crops were put in, the garden hoe was the most valuable instrument to use, and it should be plied regularly to keep the surface soil loose and ventilate it, as well as to kill weeds. Chemicals should not be used alone without animal manure. Humus was necessary; a soil rich in organic matter was never so cold as one full of mineral matter. Humus acted like a sponge and held the moisture in a dry season. Nitrogen was to plant life as brandy to human beings. Organic acids not taken up acted as poison to plants, but when lime was present all this was altered. Lime was the second essential in fertility, and a small annual dressing was much better than a large one at longer intervals. A number of questions were ably replied to by the lecturer, who, with the chairman, received cordial votes of thanks.

THE GARDEN.

No. 2316.—Vol. LXXX.

APRIL 8, 1916.

NOTES OF THE WEEK

Hyacinths at Vincent Square.—There has been greater variety than usual in the Hyacinths shown at the fortnightly meetings of the Royal Horticultural Society. Quite a new shade of colour was seen at the last meeting in the variety Orange Boven, shown by Messrs. Barr and Sons. The flowers are of a delicate salmon rose, shading to buff. It is one of those pleasing art shades which create so much enthusiasm from the fair sex.

Many-Flowered Hyacinths.—What are known as many-flowered Hyacinths, in which six to ten or even more spikes are produced from and around one bulb, are becoming very popular. Any Hyacinth may be converted to "many flowered" by scooping out the base of a well-grown bulb in its third or fourth year. The bulb then splits up into bulblets, producing many flowers in the second year after cutting the parent bulb. This practice has long been known to Dutchmen, who frequently increase their stocks of Hyacinths by this means.

Gardeners' Royal Benevolent Institution.—At a recent meeting of the committee of the Gardeners' Royal Benevolent Institution, sums of money, varying from £3 10s. to £10 each, were voted from the Victorian Era Fund to those unsuccessful candidates at the last election who were formerly subscribers to the Institution. By this means no less than thirty-six applicants are given assistance this year, and a sum of £246 has been devoted to a good cause.

Sex in the Lombardy Poplar.—The observations on this subject and the illustration of distillate catkins of the Lombardy Poplar in a recent issue have created a good deal of interest. The female form may be very rare, but the following record by Loudon indicates that it was in existence at least a century ago: "Plants of the male are plentiful in England. The female is known to be extant in Lombardy, whence we have received dried specimens and seeds in November, 1836. Mr. C. A. Fisher, inspector of the University Botanic Garden, Gottingen, found, in 1827,

a single plant of the female, after having many years before sought fruitlessly for it among many thousands of plants around Gottingen." It would be interesting to know if Lombardy Poplar has ever been increased from seeds, and, if so, what was the character and sex of the seedlings.

Transplanting Hollies.—Any movement of Hollies should be undertaken this month, as they can be transplanted more successfully at this than at any other time. The shedding of a considerable quantity of leaves need not cause alarm even in the movement of large specimens; indeed, this is a sign of success in the operation. If hot, dry weather follows in May, the plants

or saint. There would, however, be this difference from modern carpet-bedding: whereas now a varied selection of plants would be used, then there would be but one tonsile herb or dwarf shrub employed for the whole design.

The Effects of the Storm at Kew.—There is evidence on every hand at Kew of the severity of the storm which swept over London on the evening of March 28. Between twenty and thirty large trees were blown down, while many others are very much disfigured, some so badly that it will doubtless necessitate their removal. One of the oldest Lebanon Cedars fell on the Temple of the Sun, completely smashing the structure. The last remaining Elm of the Seven Sisters group was uprooted, and close by, measuring their length on the lawn, are a large Willow and another Cedar of Lebanon. The Cedars appear to have suffered severely, a Deodar and two Atlas Cedars also falling victims to the gale. By the riverside five Lombardy Poplars were uprooted, falling on the boundary wall at the back of Kew Palace. Numerous other trees were razed to the ground, while large branches and many trees with a decided tilt remain to tell the tale of a storm more severe in point of damage than any within the memory of the oldest workmen.

Acanthopanax leucorrhizum.—This interesting shrub belongs to the Aralia family, and was introduced from Central China by Mr.

E. H. Wilson in 1901. A deciduous bush at present 5 feet high, it will probably grow taller. The plants have an open, elegant habit, with three or five parted leaflets. The greenish white flowers are closely arranged in a ball-like umbel, up to 2 inches across, during July. In autumn and early winter the jet-black fruits are very striking. It is an effective subject for the shrubbery border and pleasure grounds. Well-drained ordinary garden soil of a light rather than a heavy nature is suitable. Seeds provide a ready means of propagation. *Eleutherococcus leucorrhizus* is another name given to this shrub, which is one of the most ornamental of the genus.



THE TEMPLE OF THE SUN AT KEW WRECKED BY A CEDAR OF LEBANON IN THE SEVERE STORM ON MARCH 28.

will be the better for a damping with the syringe daily.

Armorial Carpet-Bedding.—A favourite plan for filling one or more beds in public gardens and parks is the adoption of some heraldic device, such as the arms of the town, the local regiment associated with the district, or the Royal monogram. The idea is by no means a new one. As long ago as 1640 a plan for filling a bed with crossed keys in a garden dedicated to Saint Peter may be found in Castelli's "Hortus Messanensis," which was published in the above year at Messina. The little quarto contains fifteen plans for laying out gardens, each one dedicated to an apostle

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Violets Changing Their Odour.—A most curious thing has happened to my Violets this year, and I wondered if any of your readers have ever met with a similar case. I planted the Neapolitans in a frame which had held Cucumbers during the summer, adding a little fresh soil. The Violets have almost entirely lost their natural scent, and smell quite strongly of Cucumber. This is particularly noticeable after they have been in water a day or two.—K. B. [Before attempting to account for it, we would like to assure ourselves of the change of scent in the Violets. Lady gardeners—among whom is our correspondent—are bringing quite a new set of interesting problems.—ED.]

Lenten Roses as Cut Flowers.—In reply to "A. La T.'s" question (issue March 25, page 144) about persuading Lenten Roses to last in water when cut, I find they must have their stalks *slit up* with scissors or knife *as far as possible*, and be plunged "up to their chins" in cold water *directly they are gathered*, and left thus all night. They will then last (in water) for two or three days, and, when floppy, a few hours' soaking in cold water will bring them round again. I have made mine last for a fortnight. Of course, they should be in as deep water as possible when arranged in their glasses.—E. F. C.

—In THE GARDEN of March 25, "A. La T." asks how to preserve Lenten Roses as cut flowers. If she will split the stems up for 2 inches, *not* bruise them, and again insert the knife above the split for another inch or so, and put them in plenty of plain cold water, they will last for quite three weeks as cut flowers. They are sure to flop if put in shallow bowls in the Japanese manner, as they seem to require water high up the stems. If for any reason they do get soft, if they are laid quite overhead in cold water all night they will revive.—M. A. P.

Perpetual-Flowering Carnations.—Although I have given up growing Perpetual-flowering Carnations, I tried them for at least ten years in the nearer suburbs of London, and found, after taking every precaution, that the blooms in winter in the London suburbs are poor in the extreme. This I attribute almost entirely to the absence of sunshine, especially in the months of December and January, and as I much prefer the border Carnation in summer, I gave up growing Perpetual-flowering varieties entirely, as I wanted what I could not get, namely, good blooms in winter and spring. Also, it is my impression that no one will succeed satisfactorily with Perpetual-flowering Carnations in winter who tries to grow them within at least fifteen miles of Charing Cross; but I know this is a point which many will contend is not right. As regards Mr. L. J. Cook's article on page 151 of your issue of March 25, I think that even such an able exponent overdoes the amount of sand he gives as necessary to grow the freshly rooted plants in 3-inch pots. He says: "Use a compost of four parts loam, one part sand and another part either of leaf-soil or well-rotted stable manure." I have nothing to say about the leaf-mould, but consider one bushel of sand even to five bushels of loam, &c., much too great, and would feel very much inclined to halve if not quarter it. Sand is almost exclusively

used by Perpetual fanciers nowadays for striking their cuttings, and although I am not prepared to say it is wrong in principle, I still think that there is much too little nourishment in sand alone, seeing that the cuttings are really growing in the said substance for often two or three weeks before they get their first shift. Possibly, seeing that the cuttings are propagated in such hungry stuff, Mr. Cook thinks it necessary to give a fifth part of his entire compost for their first shift; but I should be sorry to give such a proportion to such hardy-growing plants as Carnations generally. Sand, I admit, is a useful adjunct to mix with soil for any plants, either for pots or outside work, but, all the same, I consider many seem to err in the proportion they use of it, and, after all, it should only be used for keeping the soil open and porous; it has no other real property.—NORTH MIDDLESEX.

Firming the Soil after Seed-Sowing.—I think Mr. Cecil Bartlett misses a point in his interesting note. I also am a strong believer in firm soil for plants to root into, therefore I make the seed-bed firm *before* sowing the seed, afterwards raking the surface over very lightly, and when any further covering is given I scatter fine soil loosely over. I may mention that my garden is very light sandy soil. If I were working with a heavy soil, inclined to stick together, I would treat it quite differently. There are no hard and fast rules in gardening. I am now experimenting with a rock (?) garden made from peat blocks instead of stone.—J. LYTLE, *Dunbryan, Formby*.

—In reply to Mr. Cecil Bartlett, I would say that I, too, do not hold with pressing the earth down on seeds, as a rule (for my guide, Dame Nature, does not), but in my orchard I do so to protect them from the fowls, which *will* trespass there. Usually I only *sift* fine earth over seeds, especially over Parsley, which I always grow most successfully, doing nothing that gardeners generally recommend, neither digging nor enriching the soil, but simply scratch the border lightly with a rake, scatter the seed thinly, and crumble some dry earth over the seeds, and I have always a speedy and satisfactory result.—ANNE AMATEUR.

Narcissus Sparkler, which obtained an award of merit as a market variety when shown by Messrs. Barr at the Royal Horticultural Society's meeting on March 14, was pretty obviously one of the extensive series of telling flowers which have been raised from the cross M. J. Berkeley × Poeticus. In this race come Brilliancy, Flame, and a number of other brilliant and showy things, all excellent as market cut flowers, but lacking somewhat in substance and sufficient symmetry and quality to attain to eminence on the show bench. All this class of flower is well worth breeding, however, as there is bound to be a demand for them for decoration. The public takes to them by reason of their smart and perhaps rather garish combination of red and yellow, and a real "topper," picked out of a big breadth of seedlings from this cross, is just as likely to bring success to the raiser as is one of different parentage which possesses all the perfect points of a show flower.—ORNATUS.

The Phenomenal Berry.—Respecting the enquiry as to the origin of this berry, it was introduced, if memory serves me aright, in 1900 or 1901, the raiser being Luther Burbank, the much-talked-of Californian plant breeder. Burbank described it thus: "A hybrid between the Raspberry and Blackberry, and is larger than the largest berry known hitherto. It has a bright

crimson Raspberry colour, is as productive as could be desired, and the most delicious of all berries for canning and drying. The fruits grow in clusters of five to ten or more, the individual berries measuring 3 inches around one way by 4 inches the other, and weigh one quarter of an ounce each, occasionally larger. The flavour distinctly partakes of both Raspberry and Blackberry." As the Phenomenal Berry was in existence long before the Newberry, which it so much resembles, perhaps it would clear up matters if the raiser of the latter would say how, when and where he developed the berry in question.—T. A. W.

Gardening "Out Back."—At Christmas-time I made an enjoyable trip to the mountains in North-West Tasmania, and in the course of it gained some impressions which may possibly be of interest to the gardening fraternity at home, as it is unlikely that they all have a vast store of knowledge about this colony. Although a small place, a good deal of it is uninhabited and almost unexplored. Certainly the maps are very faulty. We took a motor-car further along a rudimentary track than a car had ever been before, and then, not attempting the passage of a particularly rocky stream, left it in the Bush until our return a week later. *En route* it was interesting to see the progress of civilisation in the newly opened up districts. Potato-growing is an important industry in North-West Tasmania, and it was novel to witness this crop growing all among gigantic standing ring-barked Eucalypti. To appreciate the enormous labour of clearing such country, one requires to go there. Unfortunately, a variety of troubles soon hamper the pioneer. Probably two seasons after disposing of the scrub and lower branches by fire, "Fire Weed," a tall-growing and robust, yellow-flowered weed, quite new to the land, appears in great profusion; how it gets there is not easy to determine. Familiar English weeds, such as Blackberries, Docks, Charlock, Nettles, Scotch and Yankee Thistles, quickly follow. I even noticed Verbascums here and there—most unexpected plants to see. Rabbits also appear and, later, starlings and, maybe, sparrows. I fancy that Tasmanians are keener gardeners than the majority of colonists. An attempt at ornamental gardening is general, even at remote places in the Bush. Among the flowers most likely to be seen are Madonna Lilies, Crimson Rambler Roses, Spanish Broom, Honeysuckle and Tree Lupines, and in older places Cordylines are favourites. The European trees usually earliest planted are Weeping Willows and Poplars. The mountain flora is most interesting. It was quite nice to get among King William Pines (*Arthrotaxis selaginoides*), Mountain Grass Trees (*Richea dracophylla*), Beech (*Fagus Cunninghamii*) and flowering Tasmanian Waratah (*Telopea truncata*), not to mention more miniature beauties, after so much of little relieved Gums and Wattles down here in the South. I was fortunate in having the company of the Government Botanist. Tasmania does not run to employing the entire energies of such an official; he is also a dentist, and popularly credited with the perhaps unique ability of being able to set teeth to rights with one hand and at the same time work with his other hand and a portion of his mind at botany! The Apricots are now ripe here. They are almost as much grown in this district as Apples, and are profitable at 1½d. or 1½d. per lb. It makes me think they might also be cultivated in large orchards in Devon and Cornwall.—ARTHUR GARNETT, *Cambridge, Tasmania*.

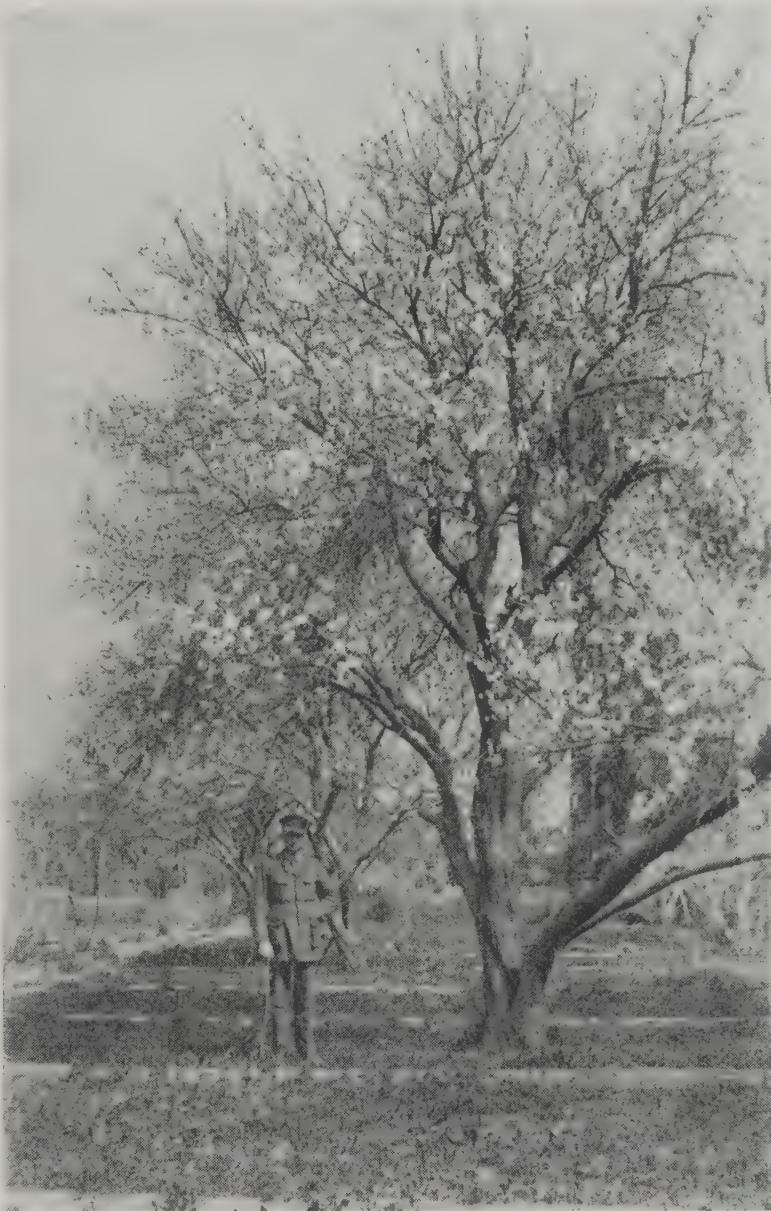
Women's Defence Relief Corps.—Last year we started trying to supply farmers with casual labour for harvest, and the work grew so much that this year we are being applied to for gardeners, stock women, poultry and farm hands. Our endeavour is to put the labour in touch with those who want it, and Lord Selborne says he "appreciates highly the work the Corps is doing." We must rely on the Press to make our organisation known, and I am therefore writing to you, for we are enrolling numbers of women (all sorts, from college women to housemaids!), and we want the employers of farm labour to know where to apply. Our plan is to send them in bands into any district short of labour. We send an organiser first to arrange with the farmers with regard to housing, payment, &c., and then the women go under a forewoman. Those interested or requiring labour should write, enclosing stamped addressed envelope, to the Hon. Secretary, 10, Abbey Road, London, N.W.—C. A. DAWSON SCOTT.

Peach Blossom in an Orchard near Suez.—"It is something gained, once in the twelve months' round of commonplace, if only for a moment to stand beside a Cherry tree in blossom. The blue sky looks infinitely far off, seen through such a maze of flowery myriads." Thus "E. V. B." in "Days and Hours in a Garden." What must it be to see the lovely pink Peach blossom against the glorious blue of an Eastern sky! "Health to the body, peace to the mind, and thankful worship to the soul" . . . after the storm and stress of the Gallipoli campaign.—W. D.

Another Good Maincrop Lettuce.—I was greatly interested in Mr. C. Turner's note on Eckford's Cabbage Lettuce Wonderful in the issue of THE GARDEN for March 25, page 144. From his description I should imagine it is well worth growing, and I for one should be inclined to give it a trial but for the fact that I am more than satisfied with the variety I have grown for the past two seasons to yield a midseason and autumn supply. My desire to recommend this particular Lettuce to all those who are not already acquainted with it prompted me to write this note. The variety I refer to is known as Sutton's Supreme, and it possesses all the virtues Mr. Turner attributes to Eckford's Wonderful. Under good cultivation it attains gigantic dimensions without the least suggestion of coarseness. It forms a very solid heart, is of fine flavour and colour, and, best of all, it seems very reluctant to "bolt." On second thoughts I will give the variety Mr. Turner recommends a trial this season side by side with my own pet variety. If Wonderful wins the trial, I shall consider it truly wonderful; but I have a feeling that somehow Supreme will emerge supreme.—F. W. MILES, *Ware Park Gardens, Ware.*

New Hyacinths.—Apart from the general excellence of the cultivation and the merit of the individual varieties staged in Messrs. R. and G. Cuthbert's gold medal display of Hyacinths at Vincent Square on March 14 and 15, there were three new seedlings in the collection to which I would like to call readers' attention. King Alfred, the oldest, has been in commerce for some

years now. It is a deep lilac blue, paler in the centre of the flower than at the edges of the petals. The spike is somewhat slender, but it is well covered by the bells. Duchess of Westminster, which is quite new and not in commerce, has a short spike resembling that of Perle Brilliant, with large, purple blue bells which are lighter in the centre than towards the circumference, the back of each being a vivid electric blue. Coral Queen in its general appearance features the well-known Moreno, with the glaring defect of that fine variety remedied; in other words, it has a good strong stem. The spike is longer and the bells are rather more pointed, of very much the same warm pink colour, but, if anything, somewhat lighter in tone. Coral Queen should have a grand



PEACH BLOSSOM NEAR SUEZ.

future before it. When it is better known and can be sold at the same price as Moreno, it will totally eclipse this popular variety. Messrs. R. and G. Cuthbert are to be congratulated on their fine display, which was made additionally interesting by the introduction of novelties.—JOSEPH JACOB.

FORTHCOMING EVENTS

April 11.—Royal Horticultural Society's Meeting and Exhibition, 1 p.m. to 5 p.m., Vincent Square, Westminster.

April 14.—National Rose Society's Spring Rose Show, 1 p.m. to 5 p.m., in the Royal Horticultural Society's Hall, Vincent Square, Westminster.

SOME BULBS FOR SPRING PLANTING

IN a great many country gardens there is a demand for plants that flower in early autumn, and although there is a goodly host of herbaceous kinds that naturally flower at that season, those with bulbous or tuberous roots are more or less neglected. If we eliminate the Montbretias, Gladioli and late-flowering Lilies such as speciosum, very few of the kinds that can be, and often are best, planted in spring will be found in most gardens. One cannot help thinking that this is a mistake. Montbretias and Gladioli, to which reference has already been made, are too well known to need extended comment; it will suffice to remind those who would grow them that the end of March or early in April is a good time for planting. There are many beautiful varieties in each family, particulars of which can be obtained from any bulb catalogue, and they ought not to be placed directly in contact with raw manure at the time of planting. Those who appreciate blue flowers in autumn should get the varieties Blue Jay and Baron von Hulot, which are the best Gladioli of this colour. One of the best bulbous flowers to put in just now is Hyacinthus or Galtonia candicans. The bulbs can be purchased quite cheaply, and should be placed from 4 inches to 6 inches below the surface. If the soil is mainly clay, it is advisable to spread some sharp sand under and around the bulbs, and this applies to most other kinds mentioned. Hyacinthus candicans attains a height of 4 feet to 6 feet, and the upper portion of the flower-stem is bespangled with glistening white, bell-shaped blossoms. Massed in an open spot in the shrub border, in the herbaceous border, or in beds of Azaleas or other spring-flowering shrubs, this plant is very effective, and it is equally good for cutting.

The Peruvian Lilies, or Alstroemerias, are bulbous flowers that we see too little of. It is true that they are not well adapted for very cold soils or situations, but in all moderately warm gardens such kinds as chilensis and aurantiaca, with their several variations, will give a good return in the way of curious-shaped and wonderfully mottled flowers. The bulbous roots need to be planted at least 9 inches deep and sanded around as advised for Hyacinthus. In warmer districts Alstroemeria pelegina, a very beautiful species, may be grown. The Belladonna Lily, with its large, rose pink flowers, is always greatly admired when seen in flower, and spring is a suitable time for planting the bulbs. These need to go at least 9 inches below the surface, and must be accommodated under the south wall of a warm greenhouse. When visiting Carrow Abbey during the autumn I saw a fine display of this noble plant in a narrow border under the wall of one of the plant-houses, and the dainty little Zephyranthes candida was used as an edging. This is a low growing

bulbous plant with dark green leaves and fairy-like white flowers, and the effect created by the Belladonna Lilies and these was very charming. As the Zephyranthes can also be planted now, those who have suitable borders may care to arrange for a similar effect next autumn. I ought to mention, however, that the Belladonna Lily does not usually flower well the first year it is planted.

Although the corms of most hardy Cyclamen are planted in autumn, there are two which may be put in now, viz., *C. neapolitanum* and *C. europæum*. The former has rosy pink or white flowers, and the latter dainty little blossoms of crimson purple hue. Both flower in autumn, appreciate overhead shade, and some old mortar or similar lime-containing material in the soil. Two inches is quite deep enough to plant these. Ranunculuses, at one time the treasures of many of our best gardens, are seldom seen nowadays, yet they embrace such vivid Oriental colours as we get in few other autumn flowers. The grotesque-looking roots are best planted in March or early April, in an open spot towards the front of the border, and it some well-decayed cow-manure can be mixed with the soil, the plants will greatly appreciate its cool and nourishing properties. Poppy Anemones may also be planted at this season where late flowers are desired, although many prefer to consign them to the earth in autumn for an early summer display. For a sunny bed or border, and where the soil is well drained but of a nourishing character, a few at least of the Tigridias ought to find a place. They have gorgeous flowers, of many bizarre hues, those in which yellow predominates being, perhaps, the most effective of all. The bulbs ought to be planted about 3 inches deep early in April, and lifted again after all the leaves have faded.

H.

NARCISSUS POTENTATE

THIS is a fine, bold flower of two shades of soft yellow, featuring in its general appearance Henry Irving, only considerably lighter in colour. It is a flower of great promise, and when better known I am sure it will be widely grown. The outstanding feature of the bloom is its great wide trumpet, emphasised by the broad expanding brim. The perianth is a little too uneven to altogether please me, but this may come better another time. Anyhow, it is a fine, noble-looking flower, and was well shown in a collection of choice Daffodils by Messrs. J. R. Pearson and Sons of Lowdham, Notts, at the recent Spring Show of the Royal Horticultural Society at Vincent Square, Westminster, S.W.

J. J.

SOME UNCOMMON BORDER PLANTS

Eremostachys laciniata.—Considering the vast number of plants described in Nicholson's Dictionary, it is to comparatively few that the great botanist affixes the term "pretty" or "beautiful." This genus, however, is so favoured. It is a reason for surprise that this fine border plant, introduced in 1731, is so seldom seen in gardens. It is a true perennial and quite hardy. Its handsome, finely cut leaves are rarely absent from the plant, as



THE NEW AND NOBLE-LOOKING NARCISSUS POTENTATE.

throughout the winter considerable growth is made. The flower-spike in a strong plant will reach a height of 2½ feet to 3½ feet. The individual flowers are arranged in whorls and, as in some species of Verbascums, the display is kept up over a long period. The colour is a pale primrose yellow, the lip of each flower being marked by a chocolate brown blotch. The flower-spikes are clothed with a white tomentose covering, which makes the flowers look as if packed in cotton-wool. Owing to the fleshy nature of the roots, division is not easy, but the plant can be raised from seed. It is well to mention perhaps that patience is required, as three or four years

may elapse before the flowering stage is reached. *Eremostachys* is a genus comprising about thirty species, and we wonder what other members of the family are like. *E. laciniata* is figured in the *Botanical Register* and also in a much more accessible book, namely, "Wild Flowers of the Holy Land," by Mrs. H. Zeller, 1875.

Caccinia strigosa.—This plant would, no doubt, be more popular if it had a better habit of growth. Unless early attended to with stakes it is rather untidy. It is a favourite of mine. Its glaucous foliage and fine blue flower-heads are suggestive of the sea, and though a far-removed relation, it always reminds me of *Mertensia maritima*, the most beautiful of all British plants, which appears annually in a spot on the North Sea coast known to me since boyhood. I read lately that a schoolboy had defined an annual as a plant that died once a year, and a biennial as one that died twice. My plant of *C. strigosa* may be said to have accomplished the latter feat. During last May the plant gave promise of a fine display. It had been early staked and well watered, but one fine morning it looked sad, and before noon it had wholly collapsed. Knowing that the soft, succulent growths issued from a thick rootstock like its near relation *Anchusa*, I dug up the root, assuming that it would be increased in the same way as the *Anchusa*. Determined on having a large stock, I cut the root into many parts, but neither the blandishments of the open ground, the cold frame, or the heated house would induce a single piece to grow. Left with a small seedling or two, its only offspring of a previous year, I mourn the loss of this fine plant so foolishly led to the slaughter. From the "Kew Hand List" we learn it is a native of Persia.

Urospermum Dalechampii.

—This is a very old plant, and was figured in the *Botanical Magazine* a century ago. It may not be admired by everyone; few plants are. It is, however, superior to many plants seen in gardens. It is of low stature, about 1½ feet, and in both the leaves and the pale lemon yellow flowers resembles a Dandelion. Now, the Dandelion is despised only because it is common. *Urospermum* is not common, and when a good-sized plant is seen in a mass of flower, it is not without merit. It has fleshy roots that do not divide easily, and gives no seed, much as I should like it to. Nicholson says it is a biennial. It is with fear and trembling that I contradict so great an authority, but my plants are now preparing to give me pleasure for the fifth time.

Geum alatum.—This is the most elegant member of the genus that I have met with. It has an aristocratic air entirely lacking in its at present most popular relation *G. coccineum flore pleno*, even when that showy species is named after a lady called Mrs. Bradshaw. *G. alatum* is a rare

plant. The price, as Geums go, for this plant is high. It is from the far Himalayas, and has resided with us since 1880. From a small tuft of beautiful foliage, dainty flower-stems arise, on which are borne the charming flat yellow blossoms. It is a plant always admired, has an "aloof" look about it, increases slowly, and gives seeds but seldom.

Epilobium macropus.—This dwarf carpenter, with its small, shining, shrub-like leaves and multitude of starry white flowers, is a gem for rockwork. Coming from New Zealand, it is not overhardy, and is often lost during the winter. A fellow-countryman of mine (Scotch) says it should be liberally distributed among friends, so that it can be called back when required. Thus, as my friend put it, you fulfil the Biblical injunction, "Cast your bread upon the waters," but with a string attached.

Brittonastrum lonocalyx.—Although in possession of an ample stock of this Mexican labiate, I have not had any great success with it, though elsewhere I have seen it in good form. It is a most attractive plant when happily placed, some 3 feet to 4 feet high, with Salvia-like spikes of rich rose pink flowers. The exact colour is difficult to describe. It seeds freely, and may also be propagated by division or cuttings.

Clematis coccinea alba.—It would be interesting to know if any GARDEN readers are in possession of this lovely albino, which I have only seen in Holland, when on a visit there in 1913. I was informed it had appeared in an importation of *C. coccinea* received from the United States. Mr. Bean, in his recent book on "Trees and Shrubs,"

says that the colour of the flowers in *C. coccinea* varies, but he does not record a white form. The plant, I am lately informed, has proved most difficult to propagate. It is also worth mentioning that the summer of 1913 in Holland was a very wet one. The soil in which the plants were growing was moist peat, and, strange to say, a long row of *C. coccinea* looked a picture of vigorous health, altogether different from the rather poor, unhealthy samples met with at home. It is possible we treat this plant wrong. Instead of a wall or sheltered corner, the plant might be more happy in a moist, dank spot, with the roots adequately protected from severe frosts in winter, of course. Another plant in Holland that impressed me favourably was

Veronica virginica alba magnifica. In general appearance it is a fine companion to the Japanese *V. longifolia subsessilis*—a plant always admired—dwarf and sturdy, with massive spikes of pure white flowers. This plant when offered is sure of a good reception.

Lactuca perennis.—In the stately language of a bygone day, the Lactucas "elevate themselves majestically—like a Hollyhock." Tall and slim of habit, they probably look best when planted in the centre of a broad border, so that their charming blue flowers rise above the surrounding plants. *L. perennis* may not be a rare plant, but I have had a difficulty in finding it. It really is a dwarf species, and may be grouped at the front of the border. It has a long blooming period, and the flowers have that shot-silk effect common to the latter species. Another fine Lactuca is *L. grandiflora*, which has lately come from China. The flowers of this are remarkable for their size. *L. repens* is the pigmy of the race, and is a new plant a few inches high, with glaucous, three-lobed leaves and yellow blossoms.

Greenwich Park.

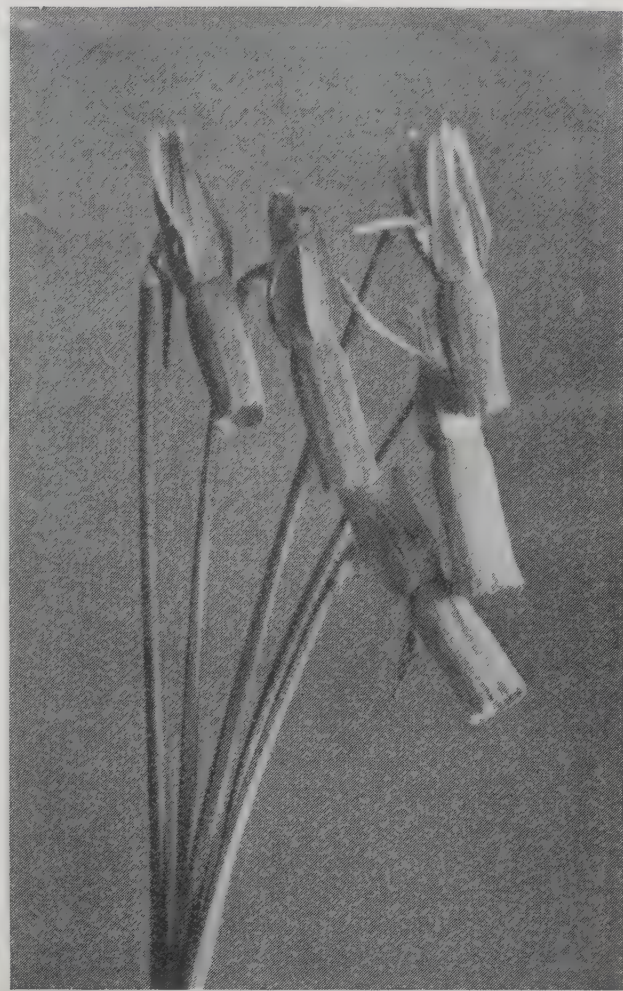
T. HAY.

NARCISSUS CYCLAMINEUS

BY THE REV. JOSEPH JACOB.

ON several occasions, both in this year and last, I have noticed excellent little pans of this most distinct Daffodil exhibited at the Royal Horticultural Society's fortnightly shows in the early months of the year. From my own experience I can say that it is very amenable to pot culture in cold frames or quite cool greenhouses. It seems to do just as well there as it does under more natural conditions, as, for example, in thin woodland. There used to be a splendid patch of it growing under the above conditions in the late Mr. Andrew Kingsmill's garden at Harrow, and it may also be seen growing very luxuriantly in a similar position in the Rev. W. Wilks' garden at Shirley, near Croydon, where it is increasing in numbers from self-sown seed every year. It likes a damp subsoil, for it is said to be found by the sides of streams in its native haunts. A picture of it growing under such conditions used to ornament Barr's catalogue some years back.

One point of immense interest in regard to this species is that had it been a human, it would have been able to do something very like reading its own obituary notices. On page 305 of Dean Herbert's "Amaryllidaceæ" we read as follows: "N. Cyclamineus (Rudb. Theat. flor. 20 called there N. Hispanicus minor, luteus, amplo calyce, foliis reflexis) is another absurdity which will



THE LITTLE NARCISSUS CYCLAMINEUS.
Excellent for pans and naturalising in thin woodland.

never be found to exist. It is probably an execrable representation of *Ganymedes capax* with the margin of the cup incorrectly given; and looking at the rest of Rudbeck's figures, I have no hesitation in rejecting it as a nonentity. There is no account of the quarter from which it was obtained." That was putting the extinguisher on with a vengeance. Rudbeck (?) had invented it or had made a bad drawing of *Ganymedes capax*, which we now know as *triandrus calathinus*.

The sequel is one of the many instances which gives point to the aphorism, "It is as well not to prophesy unless you are sure." *N. cyclamineus* was no myth, as the good Dean imagined it to be. "It bobbed up serenely" from Portugal in the eighties of the last century, and by its appearance proved the engraver of the "Theatrum Floræ" and Pierre Vallet of "Le Jardin du Roi Henry IV." (1608) to have been right, and Herbert, in his rash surmise, to have been wrong.

A point of interest in the above quotation from the "Amaryllidaceæ" is the statement that the figures in the "Theatrum Floræ" were Rudbeck's. I feel sure this is an error, unless there is another Rudbeck beyond the three mentioned in the bibliography of Seguierius (1740). In this book the earlier of the three Rudbecks was only born in the year 1630, while the "Theatrum" was published in 1622, or, if we take the second edition, in 1633. This, however, does not do much to improve matters unless little Olaus Rudbeckius was one of those infant prodigies which startle the civilised world from time to time, and was able to produce the beautiful work of this fine book at the mature age of three—which proceeding, I venture to think, is far more unlikely than the Dean's cyclamineus.

I have dragged Vallet's name and his work in because, incidentally, his books appear to fix the date for the introduction of *N. cyclamineus* into



EREMOSTACHYS LACINIATA (BUNGE).
From an illustration in Mrs. Zeller's Book.

gardens. In "Le Jardin du Roi Henry IV." (1608) there is no figure of *N. cyclamineus*, whereas in "Le Jardin du Roi Louis XIII." (1623) a plate is introduced with an excellent representation of this quaint Daffodil upon it. The plants in these books were supplied by Robin, who was the head of the "hortus botanicus" of Paris. It seems, therefore, a reasonable surmise to put the date of the introduction of *N. cyclamineus* into garden cultivation somewhere between the years 1608 and 1623. Its disappearance is easily accounted for, as it is one of those Daffodils that ordinary rich cultivated soil seems to poison.

It is a fighter and does not seem to be happy in the open ground unless it has to battle for its existence among roots, or, if cultivated in pots, only given fresh, extra well drained virgin loam to live upon.

To refer once again to the "Theatrum Floræ." The name of the engraver is, as far as I have been able to ascertain, unknown. Whoever he was, he was a clever and good artist, for his pictures of plants are exceedingly well done. In all the lists that I have seen it is catalogued under the "opera anonyma." The 1633 edition was published by the famous Paris firm of publishers Mariette et fils, and was bound in that curious, rough-looking mottled calf which marks some other books which came from this ancient house.

MICHAUXIA TCHIHATCHEFFII

SOME eighteen years ago the *Gardeners' Chronicle* announced the introduction of a grand new biennial plant which was to be a noble addition to our collection of hardy plants. Walter Siehe had the previous year written enthusiastically in *Gartenflora* of the same plant, prophesying a great future for it as a plant for grouping. His excellent photograph, taken in its native habitat in the Cilician Taurus, appeared in the *Gardeners' Chronicle*. The plant flowered at Kew in 1876, when it was figured for the *Botanical Magazine*, but was not published until 1900. This plant died after flowering, and I believe it has only been represented at Kew once or twice since. I have never met with it in any garden either in England or on the Continent, and it is scarcely known even by name. The late Canon Ellacombe grew it for some years in his garden at Bitton, but it never flowered and he discarded it. I exhibited some fine flowering spikes in July, 1914, for which an award of merit was given by the Royal Horticultural Society. The exhibit attracted much attention, and was regarded as a fine novelty by all who saw it.

The photograph accompanying this note was taken from my plants at Warley, which flower profusely every year in June and July, seedlings coming up all around the parent plant. I have distributed well-established plants as well as seed among friends, but they have never succeeded, although I was told that the conditions under which it thrives here had been imitated as far as possible. In light soil, in an open, sunny, well-drained border, it ought to thrive elsewhere as well as it does at Warley. E. WILLMOTT.

THE ETHICS OF ROSE PRUNING

(Continued from page 152.)

ROSES which have become sickly both in growth and in bloom can be assisted by severe pruning; all shoots are cut away to within two eyes from the base, and the result will frequently be surprising by its rejuvenating powers—for the bush will often take on a new lease of life, when the

the blooms, cut to an eye pointing outwards; but the length of stem allowed to be removed with each bloom depends largely on the relative vigour of the tree and the general amount of foliage it possesses. For instance, Roses such as La Tosca and Mme. Mélanie Soupert, which make long stems crowned with flowers, and yet such stems bearing few leaves or dormant buds, may be cut with long stems, as their removal is not detrimental to the health of the tree. We can now leave this portion of the subject, and consider the latter one.

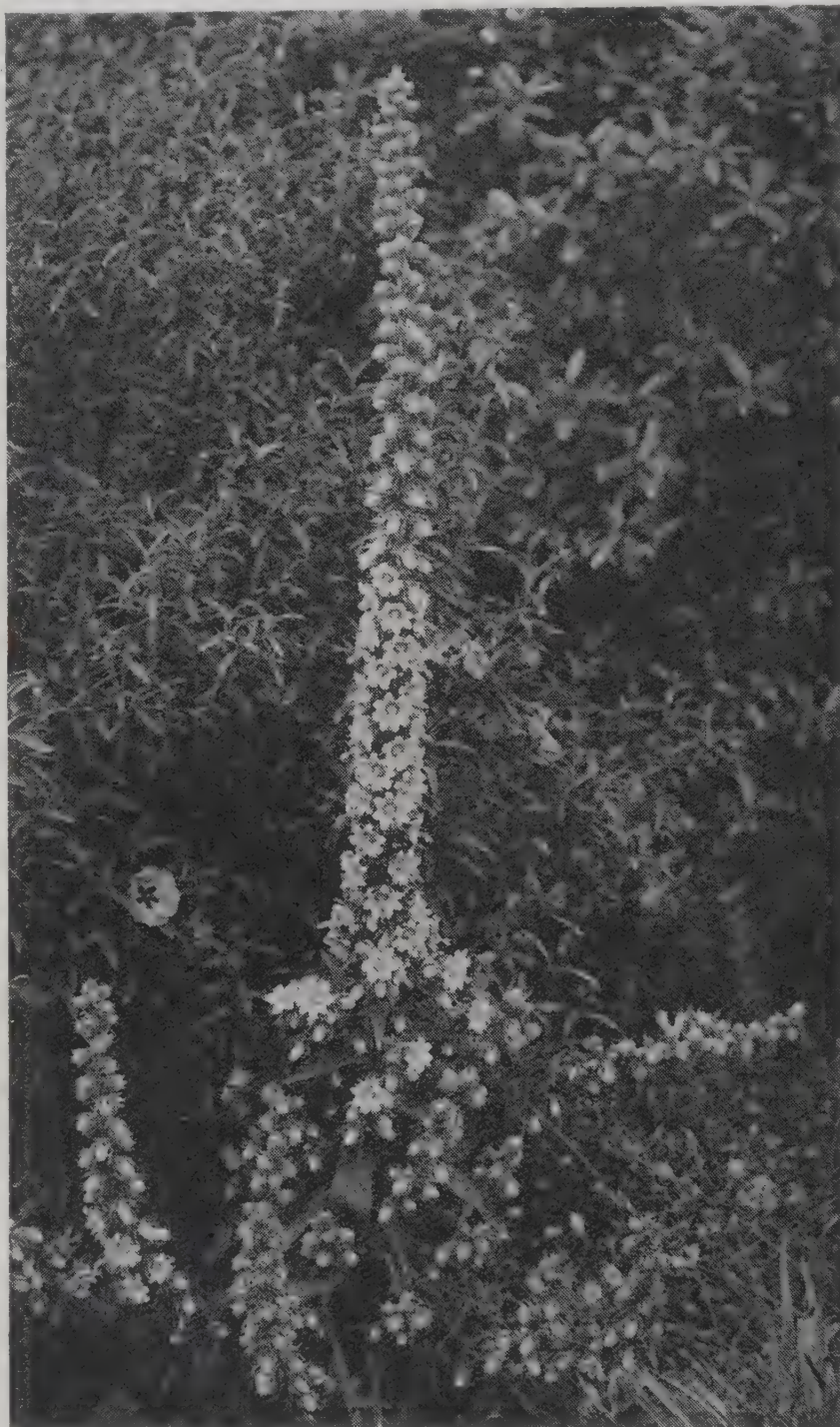
On Ripening the Wood.—This refers more particularly to the rambling and scandent Roses, whether they be perpetual and autumn bloomers or summer ones only. It is essential that the young wood retained for the following year's blooming be well ripened, so as to successfully withstand the sudden climatic changes of winter and early spring, and three questions arise on this: (1) What is meant by ripening? (2) Why is it so necessary to thoroughly ripen? (3) How is it best accomplished?

(1) In the first place, it may be stated that a natural change in the physical condition of the shoots occurs during the autumnal months; and the new soft and sappy ones of the summer become more woody in character, generally changing to a brown or brownish red, or, perhaps, greenish brown or red. The thorns then become more firmly attached to the bark, and are brownish or even more or less blackish in tone. Finally, the bark itself becomes firmer and drier in texture.

The young and sappy shoots, in an active condition, contain a considerable and appreciable proportion of aqueous fluid, which exists therein in two forms. Primarily, there is the unattached water saturating the cell walls, the body of the self-same cells, and which renders the sap in a very fluid condition. Secondly, there is the water within the cells themselves; and this is probably in chemical or, at least, very intimate combination with the protoplasm itself. Over this latter the protoplasm possesses exceptional powers to increase or diminish the supply, according to its individual requirements. Immature, that is, unripe, wood is very easily destroyed by frost; or it is so seriously damaged that the ultimate blooming is decidedly poor. The principal object of this ripening is to get rid of as much as possible of this free water,

and, at the same time, to harden and dry the bark.

(2) The first effect that frost has on the shoots of a Rose is to freeze the water in the empty spaces between the cells. But, in more mature wood, these intercellular spaces are filled with air. In the protoplasm, as soon as the cold is felt, exosmosis of the cell water occurs; and as soon as a thaw takes place, endosmosis—that is, in plain language, the getting rid of and the reabsorbing of this cell water. The sap in the cell being less fluid, and consequently possessing a higher percentage of salts, is less likely to freeze and the cell walls subsequently to burst. It,



MICHAUXIA TCHIHATCHEFFII, A RARE BIENNIAL.

following season it can be pruned in the normal way.

The usual periods selected for the spring pruning should be adhered to, irrespective of the weather at the time selected, whether that be April or March. Frost will not damage much a newly pruned tree in spring, as it is the frosts that may occur three or four weeks after the operation is completed that we have to fear. With regard to summer pruning of bush Roses, this can be accomplished very satisfactorily by disbudding; that is, rubbing out the eyes which tend to break and unduly crowd the centre of the bush. One word in passing deserves attention, and that is, in cutting

however, the cell has to remain turgid, and the water cannot pass into the intercellular spaces as they are already fully choked with water, the sap is naturally more inclined to freeze, or the protoplasm of it is so much disorganised as to forfeit its proper functions, and therefore the shoot becomes black and frozen, or, at least, the upper and less mature portions of it do. As with water-pipes, a sharp thaw is considerably more dangerous than a slow one.

In a thoroughly mature shoot, where this exosmosis of the water from the cell into the air-filled intercellular spaces has occurred and then even frozen, this self-same ice acts as a protective substance to the living portions of the cells which

cell walls, becomes frozen, then all hope of the shoot, or that portion of it, is lost, for the cells break and the shoot is frozen to death. The less tender and more susceptible Roses may experience this to such a degree that the budded plant, to the very bud itself, may be thus destroyed. As is well known, the cells of the plant contract under the influence of cold, causing the water contents of them to filter through the cell walls, congealing in the intercellular spaces *if such are previously empty, or practically so, of aqueous fluid*—that is, in those cases in which the wood is thoroughly mature.

In *tender* Roses, that is, those with very thin-walled parenchyma in particular, these extremely

PRETTY EFFECTS IN THE GARDEN

NEW effects, many of them rendered all the more charming because of their simplicity, are always being created. For instance, one of the simplest and most pleasing that we have seen for some years was the result of an accident. Some lavender mauve May-flowering Tulips were planted close to a colony of blue German Irises, and when the two flowered the effect was delightful. Pink Mallows sown between white Japanese Anemones form a combination that must be seen to be realised, yet it is quite simple and inexpensive to obtain where the Anemones are already *in situ*, the sowing of the Mallow seed thinly early in



THE MOAT AT GREAT TANGLEY MANOR, SURREY.

it surrounds. The ice has more space to form larger crystals; and the only real damage it can do is a physical and not a mortal one, seeing that the protoplasm of the cell itself is not damaged. Moreover, in the course of ripening, some chemical change takes place in the constitution of the protoplasm itself, which renders it more resistant to the surrounding cold. Thus a plant can be frozen, and yet *not* frozen to death, as long as the molecular and chemical activity of the protoplasm itself is unimpaired. But if, on the contrary, this protoplasm becomes disorganised so that it cannot reabsorb this water as it thaws, or if the cold be so intense that the proportion of water, however small it may be, remaining within the

thin walls are dislocated with facility by the accumulation of the ice formed in the filled-up intercellular spaces, and its elements are deformed and very often crushed—the cells losing all their water. This, fortunately, is rarely complete; the pericyclar parenchyma, the endoderm, and the perimedullary zone all persist, even if that is only partially; and the liber and ligneous parenchyma practically undergoes but little change. So that to say that all plants *must* perish on thawing, as then no living elements survive, is incorrect, though the danger is naturally more increased as the susceptibility of each individual variety of Rose is increased in its sensibility to cold, whether that be dry or wet.

TORBAY

spring being all that is necessary. Pink China Roses and Sweet Lavender, and pink Shirley Poppies in large drifts, with smaller colonies of pink Virginian Stock between, but sown about a month later, are other simple and effective floral combinations that we have in mind.

In the Royal Horticultural Society's Gardens at Wisley may be seen a drift of Polyanthus nestling under the branches of some rather rough bushes of rugosa Roses, the green foliage of the latter making a delightful foil for the rich hues of the Polyanthus. We hope, therefore, that readers who may come across these pleasing combinations will, for the benefit of others, send notes of them to us for publication.

THE MAKING OF GARDENS—V.

BY G. DILLISTONE.

HAVING described how the measurements are to be taken, it will be well to go carefully along the survey lines, as I laid them down in Fig. 1, and give some general advice as to the sort of things it is important to notice. For this purpose it is as well to carry in the pocket a small notebook. This prevents overcrowding the field book with notes, and the consequent risk of its becoming indistinct.

I will proceed from A and make such notes as I should probably do on the site were I surveying it.

"Cottage garden fence crossing line A at 163 feet requires replacing.

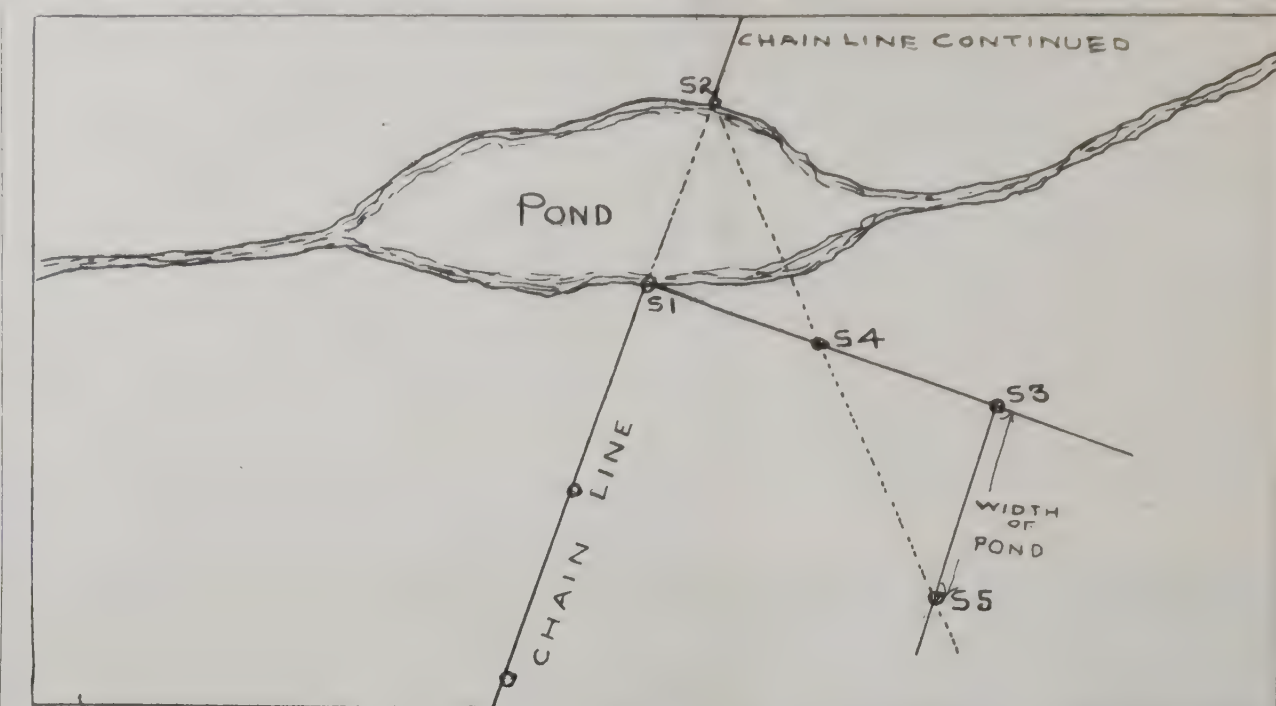
"The hedge between cottage and road is much too high and overgrown.

"The trees are all well grown and worthy of preservation, except where marked for removal in field book, several Oaks being particularly fine specimens.

"Along line C the bridge is a very picturesque stone one, but it is not seen to best advantage owing to the broken banks, and untidy growth that has been allowed to accumulate. N.B.—If an entrance gate is decided upon at this end, there is a fine opportunity about this point for pretty developments.

"Where the line C crosses the stream the banks are very steep.

"At first glance it looks as though an imposing entrance could be made through the trees on the west side of the stream, in which case a portion of field No. 3 would have to be taken into the scheme. In any case, the whole of the hedge dividing fields Nos. 2 and 3 is bad, although the trees therein are all good."

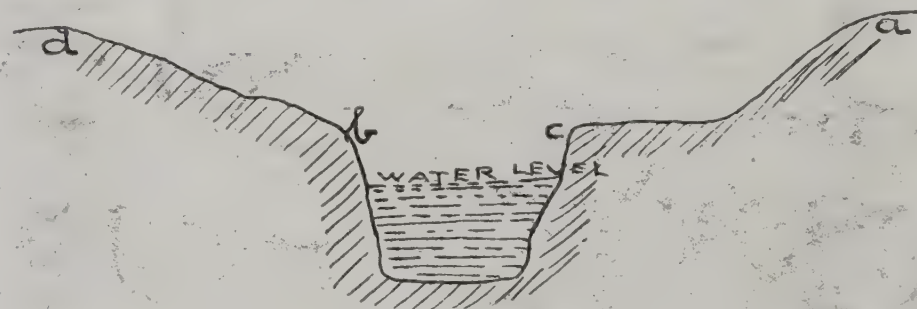


9.—CONTINUING THE CHAIN LINE ACROSS A POND.

The foregoing is an example of the notes that should be taken on the site.

The spread of overhanging trees should also be carefully noted, and can be entered in the field book thus: "Oak spread 20 feet from centre,"

quite definite. The banks may slope steeply to a certain point and then drop away abruptly to the water, as shown in the section Fig. 8, in which case it should be entered in the field book as follows:



8.—a AND d TOP OF BANKS; b AND c POINT AT WHICH BANKS FALL ABRUPTLY TO WATER LEVEL.

Top of bank	564-0
Bank	555-0
Stream	546-0
Bank	520-0
Edge of stream (water line).	
Top of bank.	

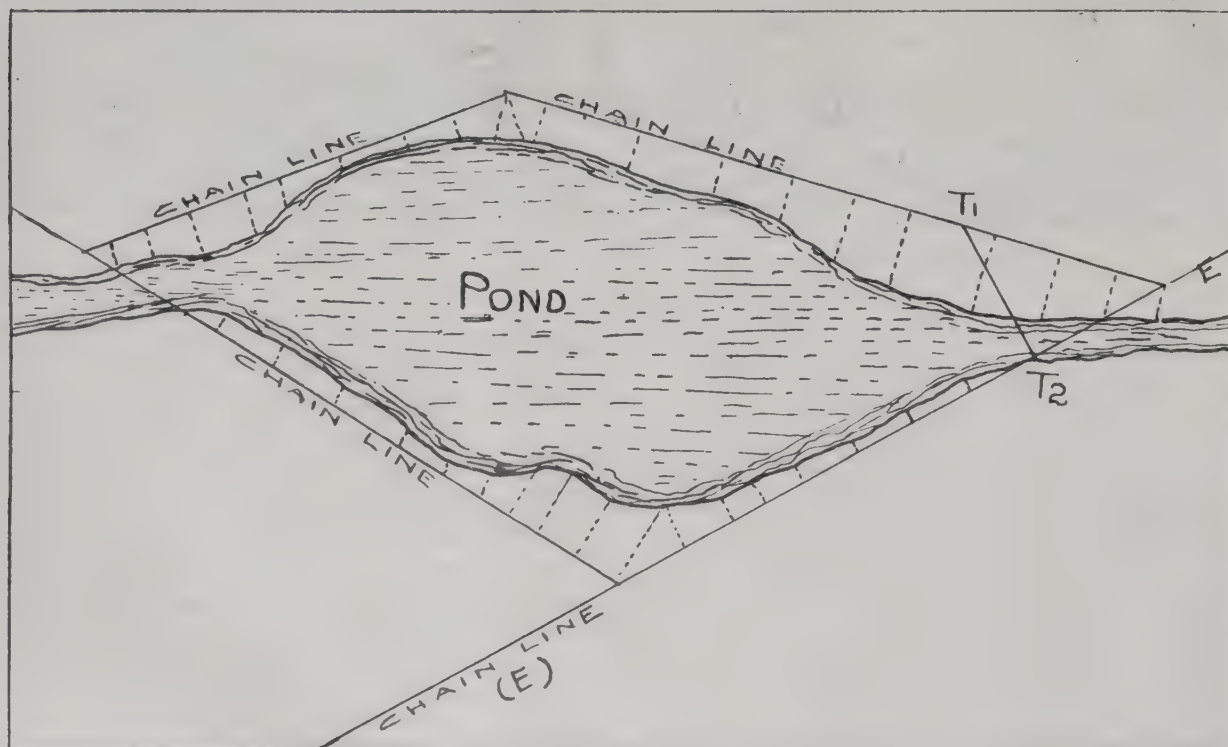
a dotted line being sketched in to represent the spread.

The beginner will find a few difficulties will occur as to how certain entries or measurements should be made under the circumstances. For instance, the width of the stream may not be

If a chain line should cross an area of water too wide to measure (such as a pond) and it is desired to prolong the line, it can be done as follows: Extend the line right up to the edge of the water, as shown in Fig. 9, place a stake at the end of it, S1, then on the opposite side of pond place another stake, S2. Now set off at right angles to the chain line, and joining it at S1 another line, placing a stake at S3 at any convenient distance. Midway between S1 and S3 place another stake, S4. Now from S3 set off a line at right angles to the line from S1 to S3, which will cross a line drawn from S2 through S4 at S5. The distance from S3 to S5 will be the width of the pond. This can be proved by setting out Fig. 9 to any scale, and it will be found that the triangles S1, S2, S4, and S4, S3, S5, are equal.

It will be seen by reference to Fig. 10 that the line E passes close to the pond. It will be a simple matter to set off other lines from this as shown, in which the firm lines are chain lines, the dotted ones offsets. Do not, however, forget that the figure must be tied in with a triangle at some point, as shown by line T1-T2. Frequent measurements should be taken to the edge of the pond, being very careful to keep them square with the chain line.

Numerous other little difficulties will occur, but none which cannot be overcome by applying the general rules I have laid down, viz., straight lines, plenty of triangles, accurate and careful measurements and booking.



10.—CHAIN LINE PASSING CLOSE TO A POND.

NOTES FROM THE RIVIERA

BY EDWARD H. WOODALL.

Tulipa saxatilis.—Among the more recently introduced Tulips, I think *Tulipa saxatilis*, the pretty soft pink Cretan Tulip, is one of the most satisfactory. It reminds one so much of a larger and brighter *T. sylvestris*; its way of running at the root and popping up in unexpected places is so amusing when left to itself in a dry, rocky soil. Here it enjoys calcareous clay, but I fancy it thrives in sandy soils also. The pretty way its buds and half-opened flowers hang their heads is most original, and the tender pink of the widely expanded bloom is very pleasing, especially when three or more flowers are open on one bulb. Altogether it is a great gain to the spring garden, and it is best when left to take care of itself—another great merit, as it can cover a considerable area. A great contrast is the native Tulip, *T. Oculus-solis*, which flowers at the same time and can take care of itself even when the border is rudely dug over in summer; but it will not stand the wet of an English summer as well under such conditions! Its upright, rigorous flower-stems and broad glaucous foliage are a strong contrast to the bright glossy green of *T. saxatilis*, and its pointed petals rise on stems fully a foot or more above the flowers of *T. saxatilis* clustering below. In the full sun the black eye of *T. Oculus-solis* is very evident, but I am not sure that this Tulip is not prettiest when shut up and pointing like flames through the springing corn. How piteous it is to see the way it is plucked up every spring; but still, though lessened, it refuses to be entirely destroyed. Both of these Tulips are among the earliest bloomers, and herald the first days of March and warm spring sunshine. This spring the charming Capri

Lithospermum rosmarinifolium is in most abundant bloom. I am not sure that its clear blue clusters of flower are still brighter and more abundant than the familiar *L. prostratum*, but it has the merit of growing in calcareous loam, which is fatal to *L. prostratum*, and, moreover, flowers all the winter, which is a great merit on this coast. I wish some clever hybridist would furnish us with a hybrid between the two that would take after *L. rosmarinifolium* and grow on limestone, while retaining the hardiness of *L. prostratum*. It would indeed be a plant for everyone. Saxifrages are being hybridised every day; why not *Lithospermums*? There is much variety among them, and some useful garden plant may well be evolved. The heavy and persistent rains have dashed many things, notably the Freesias, which vie with yellow Oxalis in ubiquity, covering the ground under the Orange trees, now being pruned and relieved of their golden fruit; but I never saw the bloom of the

Double White Peach so superb in every way. The double crimson has soon been spoilt, and the double pink Clara Meyer, which flowers so well in England, has suffered most of all. The substance of the double white petals must be much more substantial and resistant to rain, and it is worth making a note of it, especially as it is the most beautiful flower of all.

Aloe Dyckiana.—The flowering Aloes are in their fullest beauty in the month of March, and of the many fine species and varieties there is

congratulated on having a miniature and paler copy of it in our autumn gardens, but those who know *Aloe Dyckiana* will be tempted to say it is even more glorious and splendid.

Kennedya Comptoniana.—Another great beauty at this season is this well-known climbing plant, which goes also by the name of *Hardenbergia* (I forget which name has precedence), and it cannot be left without a word of praise. So kindly that it grows in stiff calcareous loam or lighter and sandy soils, it has earned itself the name of the Evergreen Wistaria; its sprays of purple, Pea-shaped flowers are so profuse and so elegant. For covering wire screens or trellises it is indispensable, and lasts quite a month in beauty before the Wistaria comes out to join it. Were it a long-lived climber it would be in every garden, but it is not a long-lived shrub, and after five years it is apt to die suddenly from exhaustion. Those, however, who are careful to relieve it of its abundant seeds and prune back some of the luxuriant growth will have the satisfaction of keeping it in health for a considerable number of years, and so avoid the annoyance of a blank space on their trellis. Happily, it succeeds well under glass, so nobody need despair of growing it in a cool greenhouse.



THE EARLY FLOWERING TULIPA SAXATILIS, NATIVE OF CRETE.

none so handsome as this. We know so well in England its hardy congener *Tritoma Uvaria* and its varieties that I need merely say that *Aloe Dyckiana* surpasses the finest *Tritomas* by a very large margin, so that may give a faint idea of its splendour. Thick, fleshy, glaucous leaves crown a sturdy stem of perhaps a yard high, and out of this giant rosette spring at this season two or even three great candelabra of brilliant red *Tritoma*-like spikes of bloom, five or six heads branching out from one stem, the flowering portion being 2 feet long at least in the best varieties, so that you have sometimes eighteen brilliant spikes of flower on the three branching flower-stalks. Certainly it is the most striking and "African" looking flower at this season. We are to be

be gathered this coming summer, and the following year a very heavy crop of berries will result.

With the object of retaining the plantation for at least three years, the Strawberries should be planted 2 feet apart in rows 2 feet 6 inches apart. I name the variety Royal Sovereign as the one suitable for planting at the distances here given, but less robust growing sorts may be planted a few inches closer. The soil must be deeply dug and, if poor, enriched with some rotted manure, well mixed with the soil. In lifting the plants, retain as many roots as possible, spread them out evenly and cover them well with soil, but do not bury their crowns. Give a good watering if the soil is very dry, then put on a substantial mulch of half-rotted manure.

G. G.

PLANTING STRAW-BERRIES

It is a waste of space and also of labour to retain old Strawberry plants when their fruiting powers are on the wane. Strong runners are produced freely enough in season, and these should be rooted in sufficient numbers to enable the cultivator to keep up the supply of fruiting plants. This is best done by destroying a number of rows of old plants and planting a similar number of young ones. When a time for planting can be selected, August is the best month in which to do the work.

About the middle of March in light, dry soils, or early April in wet and heavier loams, may be selected for planting. Strong, autumn-rooted runners should now be planted. This will be better than waiting until next August or later in the autumn to do the work, as a few fruits may

MANURIAL EXPERIMENTS IN THE GARDEN

By F. J. CHITTENDEN, F.L.S.

MANURIAL experiments may have at least four different objects, which ought not to be confused. Their purpose may be to ascertain either

(1) Whether the substance tried has any manurial value;

(2) How its value, if any, compares with that of other manures;

(3) Under what conditions it has the greatest manurial value; or

(4) To what its value, if any, is due.

The first of these objects is one which the gardener often desires to test; the second is a very pertinent question for him to answer; the third is only partially within his power to ascertain; the fourth involves tests quite beyond the range of garden practice and enquiries of the greatest subtlety which require the knowledge and mental resources of chemists, physicists and biologists, and the conveniences of the most thoroughly equipped laboratories for even their partial solution.

Every worker with the soil realises the value of lime, but in spite of that (and the knowledge rests on the accumulated results of long experience) and in spite of repeated endeavours of soil investigators to ascertain exactly where the value of lime lies, and how the good results achieved by it are attained, we have only recently learned important facts with regard to it, while yet other hypotheses remain to be fully tested, and doubtless further scientific research will open out new views and show where new lines of research may be developed even with so common a thing as lime.

Thus the fourth object, desirable as its attainment is—and no one with the interests of progress at heart can deny the imperative necessity of the endeavour to attain it—must perforce be left by most. All, however, may gain valuable information, so far as their own circumstances go, by the earnest pursuit of the other three.

The word "experiment" is not intended to be understood in the loose way in which it is often used. How often one finds a manure, say, used on a crop and praised because the crop was good, while the grower of the crop congratulates himself (and, judging by published testimonials, the vendor of the manure, too) upon the value of his "experiment"! He has nothing whatever to congratulate himself upon, for he does not know that the manure played any part whatever in the production of the result. We can only say a manure has a certain result when we know by actual trial under precisely similar circumstances the results obtained would have been different without it. It is just the difficulty of securing conditions, differing only in the presence of the manure in one case and its absence in the other, that makes field and garden experiments difficult to devise and carry out, although at first they seem so simple. Of the two the field experiment is the easier.

Let it be supposed that the object of the experimenter is to see whether the material to be experimented with will give a larger yield than was obtainable without it. We might complicate the matter by introducing other questions, such as the economic one as to whether the increase

obtainable is commensurate with the expense of the manure and the trouble involved in applying it; or its influence on time of maturity; or its effect with regard to the constitution of the plants grown or their quality, and so on; but it is better to have one clear question to answer. We shall get a reliable answer by accurately comparing the crop from the plot which received the manure with that from one which received none, but which was like it in every other particular and different in that way alone. Any other method will be guesswork and not worth a moment's serious consideration, because the answer will not be dependable. The "nothing" plot is known, in the language of the professional experimenter, the man of science, as the "control" plot; and his is the most scientific, that is, exact, reply who has been most successful in making the control and the experimental plots differ in only one thing, the thing experimented with. He will put a clear-cut, unequivocal question, and he will receive a truthful, unequivocal answer.

It is perhaps necessary to point out that the answer received will be the same only when the question is asked (*i.e.*, the experiment tried) under precisely the same circumstances, but if none of the conditions is varied, the answer will always be the same. It is obvious that in a garden experiment, soil, climatic conditions (light, temperature, water supply, air supply), seed (kind, variety, vitality), incidence of pests, quantity of manure used, details of cultivation, and so on, may well vary from time to time and influence the answer we receive; but we will consider only the details to be kept in view in endeavouring to obtain an answer under one set of conditions.

Climatic conditions must be dismissed as beyond our power to govern, but we must see to it that the control plot has the same aspect, elevation and exposure as the experimental plot. The soil must be the same on both. The two plots should have borne the same crop and have received the same manuring and cultivation as one another in previous years, and they must have the same cultivation as one another in the year of the experiment; the depth and time of digging, &c., must be alike on both. The crop to be taken must be one which can be accurately measured, not judged by the eye alone, but weighed.

At least a foot should be left between the plots themselves, so that the influence of the manure put on the one plot should not extend to the other.

The plots should be of the same size, and the same weight of seeds (or same number and weight of tubers, or number and sizes of plants) must be sown or planted on the plots. The arrangement and spacing must be the same on each plot, *e.g.*, if one has two outside rows, so must the other. If the plants are thinned, they must be thinned to the same distance apart on each plot, and the same number of plants should be left on each. The seed should be sown on the same day and at the same depth on the two plots, and the thinning done on the same day. It may be necessary to weigh the thinnings.

The hoeing, &c., carried out on the one plot should be repeated on the other on the same day, and every operation must be the same on both plots.

Either the whole of the crop should be weighed or a portion of the one plot should be taken and a portion occupying the same relative position on the other, and the whole crops weighed from these portions; the former is generally the better method. The crops must be harvested on the same day under the same conditions and weighed under the same conditions; that is, for example, one lot must not be wet with dew while the other is gathered later and is dry. The proper stage of growth at which to harvest must depend upon the crop grown, and it may be necessary to extend the harvesting period on one plot beyond that on the other. This must be taken into consideration in estimating the results.

Even with all these precautions differences are likely to be found between the crops on the two plots, not due to the manure used, but to some cause it has not been possible to foresee. It is, therefore, best to have several plots of the same size receiving the same treatment precisely, and an equal number of control plots. By this means the "experimental error," which is large when two plots only are under consideration, may be materially reduced, and the larger the number of plots the smaller the experimental error.

Large plots are not to be recommended. A multiplication of small plots is more likely to avoid error due to differences in soil than in the case of large plots, and they are more amenable to management and similar treatment.

NEW AND RARE PLANTS

FIRST-CLASS CERTIFICATE.

Odontioda Gladys (*Odontoglossum Pescatorei* × *Odontioda Bradshawæ*).—Without doubt one of the most handsome and distinct yet seen. The well-grown example bore a twenty-flowered raceme, all save five buds at the tip being well expanded. The prevailing colour is rose, irregularly blotched on a white ground. In the lip, which has a conspicuous white tip, the rose shade merges into crimson. The flowers are large and highly attractive. Exhibited by G. W. Bird, Esq., Manor House, West Wickham (gardener, Mr. H. Reddun).

AWARDS OF MERIT.

Lælio-Cattleya Verdun (L.-C. *Violetta* × *C. Schröderæ*).—The flower is of large size, with pink suffused sepals and petals and handsome purplish crimson coloured lip. From Messrs. Flory and Black, Slough.

Lycaste Skinneri variety Mrs. G. Hamilton-Smith.—Three well-flowered examples of this excellent variety were on view. It is at once the boldest and most richly coloured of its set. The sepals are rose pink, petals of a deeper shade, lip crimson scarlet, freckled with white. It is very handsome. Shown by Cyril Mann, Esq., Ravenswood, Bexley.

Primula Crispil.—A remarkable seedling, obviously of hybrid origin, from the Caucasian *P. Juliae*, from which, however, it is distinct both in foliage and flowers. The latter are of rosy crimson hue and as large as those of a good *P. acaulis*. The foliage is thick, roundly cordate in form. The new-comer has yet probably to develop considerably. From Messrs. J. Waterer, Sons and Crisp, Bagshot and Twyford.

Carnation Grisel.—This distinct novelty is remarkable for petal texture and fragrance.

and not less so, perhaps, for colour, which is reddish purple. In the perpetual-flowering set we believe it to be alone of its shade. From the Misses Price and Fyfe, Birchgrove, East Grinstead.

Saxifraga Sundermannii.—This hybrid resulted from the crossing of *S. marginata* and *S. Burseriana*, the greater leaning of the flowers being towards the first-named species, both in the reflexing character of the petals and the three to four flowered heads. The habit of growth is intermediate, the pointed leaves suggesting *Burseriana* influence. From Miss Willmott, V.M.H., Great Warley.

Narcissus Cymry.—Briefly, this is a rather large and somewhat inferior-looking Tenby Daffodil (*N. obvallaris*). Minus the latter's sturdy set and its heavily flanged rim, it also lacks its good colour and its distinctly ovate, well imbricated, erectly held perianth segments. The new-comer is rather larger than the Tenby variety, with longer, less well expanded trumpet. The award was made for "garden decoration." Shown by T. Batson, Esq., Beaworthy, Devon.

Narcissus Centurion.—A beautiful and graceful bicolor incomparabilis whose ivory white, overlapping perianth segments and longish lemon yellow, primrose shaded cup—in reality a shortened trumpet—render it very distinct. Recommended for pot cultivation. Shown by Messrs. R. H. Bath, Limited, Wisbech.

All the foregoing were shown before the Royal Horticultural Society on March 28, when the awards were made.

CARNATION ALICE

THE subject of our illustration is the latest creation of one of the world's foremost Carnation raisers, who is also celebrated for having given us Mrs. T. W. Lawson, Enchantress, Beacon, Benora and other varieties. It received an award of merit from the Royal Horticultural Society last October, when it was exhibited by Messrs. Stuart Low and Co. of Bush Hill Park, Enfield. Although the flowers are not larger than those of Enchantress, the colour is deeper and more constant, and there is more substance in the petals, which causes it to last longer in a cut state. The importance of this is much better appreciated to-day than ever before, especially in private establishments, where gardeners have to send flowers, packed, to the town houses of their employers and to the hospitals.

The chief interest in Alice, however, lies in its freedom of flowering. It is claimed by the raiser that it produces more flowers than any other variety, and this has been proved to be true. At the Carnation Show held at the Royal Horticultural Hall on March 29, plants were exhibited which had been in flower since October. Some eight flowers had been cut from these plants, which were struck last spring. They were already in bud for flower this spring, and other growths promised an ample crop to follow later on.



PERPETUAL-FLOWERING CARNATION ALICE.

It is claimed to produce more flowers than any other variety.

or disturb the roots more than possible. Further sowings of Radishes and Lettuce may be made.

Leeks.—Where fine Leeks are required, the earliest batch can be transplanted in prepared trenches and treated similarly to Celery. This, however, is not necessary for ordinary use. A hole may be made with a crowbar and the plants placed in the hole. If given a good watering, no further attention will be required beyond keeping weeds in check.

Fruit Under Glass.

Strawberries.—It is now much easier to force Strawberries than earlier in the year, as the plants are naturally on the move, and respond readily when placed in a house where there is both a little heat and moisture. The fruits on the early plants are swelling freely, and may be assisted by some stimulant at alternate waterings until the fruit begins to colour. Keep the plants well supplied with water and spray them, especially the under sides of the leaves, twice or thrice each day. Plants still in cold frames must be examined occasionally, and may be given liquid manure at intervals.

GARDENING OF THE WEEK.

FOR SOUTHERN GARDENS.

The Kitchen Garden.

Seakale.—Thongs should be prepared if not already done, and planted in rows 2 feet apart and 1 foot between the plants. The top of each thong should be an inch or so below the surface. Roots that have been covered with pots must be examined occasionally and the heads cut as they are ready.

Asparagus.—Seeds of this desirable vegetable may now be sown in lines 18 inches apart if it is to be permanent. Three or four rows would be ample for one bed, and a 4-foot alley should be left between the rows.

Onions.—If seed was sown early as advised, the seedlings ought now to be ready for planting out. Care must be taken not to injure the stems

Plants Under Glass.

Bouvardias.—Young plants should be potted on as they fill their receptacles with roots, and be grown in a warm house near the roof glass. To keep the plants bushy, the tips should be pinched out at every second pair of leaves during the early stages of the plants' growth. A further batch of cuttings may be inserted and placed in a warm, close frame. When the plants are transferred to their flowering pots, cool treatment should be given, and eventually they may be plunged in ashes in a cold frame.

The Plant Stove.—Numerous cuttings that were taken last month will have now rooted, and should be potted off. Crotons need plenty of light to get them well coloured; then they are useful for decorative purposes later on. Such plants as *Panicum*, *Fittonia* and *Pilea* may now be propagated.

The Flower Garden.

Phloxes.—The herbaceous kinds may have their growths thinned where they are too thick. Such work may be carried out at any time this month, and if it is desired to increase the stock of any special variety, the young shoots may be utilised for this purpose. They will soon form roots if placed in a close propagating-frame, but they must receive cooler treatment directly they have rooted.

The Hardy Fruit Garden.

Apricots.—All useless and badly placed shoots must be removed directly they are large enough to handle; but the disbudding of Apricots is not so severe as that practised on Peaches. Where there is space on the wall, shoots must be left to cover it, but many of the other shoots should be pinched to three or four leaves with the idea of producing fruit-spurs. If the fruits have set freely, some may be pulled off; but it is not advisable to proceed with such work until it can be ascertained which fruits are likely to develop.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)
Castleford, Chepstow.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Broccoli.—Most people have their own particular times for sowing seeds of the various winter crops, and rightly so, as this important work depends in a great measure on the situation and nature of the soil. In our climate the time most suitable for sowing, I think, is from now till the middle of April. In many districts it is found of little use to sow varieties that come to maturity in the middle of winter. The earliest and the latest varieties of Broccoli generally give the best results. The variety known as June King or Vero Defiance is a very hardy dwarf kind which comes in useful at the beginning of May. Two other varieties that never fail to stand our severest winters are Purple Sprouting and White Sprouting, which come into use a month earlier than June King and provide a good picking for six weeks on end.

Salads.—Where a regular supply of small salads is required, a start may be made with plants outdoors, choosing a position where they can be supplied with water during dry weather, as, being shallow-rooting, they soon suffer from drought.

Fruit Under Glass.

Vines.—Midseason and late Vines now require attention to disbudding and tying down. The disbudding should be accomplished as soon as

it can be determined which are the strongest and best-placed shoots. These should be stopped at the second or third leaf beyond the bunch. The removal also of a considerable number of the bunches can be done when pinching the shoots. During the flowering period the temperature may be kept a little higher and the atmosphere less moist. Some shy-setting varieties will require artificial pollination, using pollen from free-setting varieties.

Peaches.—A close watch must be kept on those trees swelling their fruits. During the stoning period the fruits, having attained about a third of their size, perceptibly stop swelling for about a fortnight. This is a critical time for them, as if any great fluctuations have been allowed, either in regard to temperature or water, many of the fruits will drop. When the stoning period is over, the fruits swell again rapidly, and pressure can be safely given to hasten the ripening of the fruit by liberal supplies of water, rational doses of liquid or artificial manure, and the early closing of the house.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

CROPPING THE GREENHOUSE.

WHERE the greenhouse is fitted with side or central stages, the space underneath these may be utilised for the growth of Seakale, Rhubarb and the blanching of

Endive, with the aid of some temporary arrangement for the exclusion of light and to prevent soil and water dripping on to the plants from above.

In a similar way the ordinary field or garden Swede may be brought into useful service, it giving quantities of blanched tops which some persons prefer to Seakale. It is surprising what a quantity of shoots can be obtained from a dozen good-sized roots. If the roots are stood on the greenhouse floor and covered with any light compost, such as old potting soil, and again covered with freshly gathered leaves or straw, only a short period is required to obtain crisp, succulent shoots in large quantities. A daily sprinkling with tepid water accelerates the growth. If the greenhouse floor is not suitable, an ordinary packing-case some 18 inches deep will suffice. The lid will save the trouble of using leaves or straw to exclude the light. A similar box 1 foot deep will answer well for blanching Endive, assuming that full-sized plants are available.

Cucumbers can be quite easily grown in the warmest corner of the greenhouse as the summer advances. One 12-inch pot or a box of similar size will sustain one plant the whole of the summer if properly fed, and will produce a quantity of Cucumbers suitable for salads, cooking or pickling. Telegraph is a desirable variety.

Much additional space can be provided in the greenhouse by suspending shelves from the rafters by means of strong wire and screws. The shelves may be about 9 inches wide, according to circumstances of roof space, light and general convenience. On each side of the shelf there should be a groove, to run the water off to one end, which can easily be done by allowing a slight slope in fixing the shelves. Any plants standing underneath the shelves are not then splashed by the water given to the plants overhead. Such shelves are extremely useful for raising plants from seed, and provide a suitable site for so many subjects after they are pricked off from the seedling stage, such as Onions, Celery, Leeks and Cauliflowers.

Swanmore.

E. MOLYNEUX.

ANSWERS TO CORRESPONDENTS

TREES AND SHRUBS.

CUTTING CONIFERS (*Penwarre*).—It does not follow that the roots of *Cupressus macrocarpa* will rot if the branches are pruned. You may reduce the height and the width of the trees at once if you so wish, but it would be advisable to dress the wounds with coal tar as soon as they are made. It is not possible to remove the tops of Fir trees with a view to getting them to form new heads, as can be done with Elms, Oaks and Chestnuts. Neither Firs, Pines nor Spruces respond to such treatment, and cutting them back would simply mean ruining the trees. The *Cupressus*, however, can be cut back with a good hope of new branches being formed.

ROSE GARDEN.

CLIMBING ROSES NOT FLOWERING (*L. B. B.*).—You were badly advised to plant such Roses as Climbing La France, Mme. Alfred Carrière, Climbing Caroline Testout, Rêve d'Or and Climbing Souvenir de la Malmaison upon a 6-foot wall. Such kinds require a 20-foot to 30-foot wall to do them justice, and we really should advise you to replace them with Roses more after the style of Mme. Abel Chatenay, Marie Van Houtte and White Maman Cochet. If you do not care to do this, you had better cut clean away some of the growths that appear weakly and also all sappy growths made in the late autumn of last year. Then nail out the remainder in a palmate form, some growths even horizontal. Any lateral growths springing from the main branches reduce to from 3 inches to 12 inches, the strongest being retained longest. If it is possible, to add lattice-work above the wall, do this by all means, carrying it even to a height of 12 feet or more; then you will get some bloom. Such Roses as these require very little pruning, save the shortening back of laterals and cutting away some of the oldest growths occasionally, but the spreading out will induce blossom as much as anything.

BLACK SPOT ON ROSES (*Mona*).—We have no experience of copperas as a preventive of this troublesome fungus, but possibly if you write to Messrs. Townson and Mercer, 34, Camomile Street, London, E.C., they would inform you as to its uses. Our American friends have great faith in Cupram as a preventive, but there is no known cure for diseased leaves, and therefore it is best to have these gathered up and burnt. Cupram consists of carbonate of copper dissolved in ammonia, and is somewhat similar to Bordeaux mixture. The materials required for making it are strong ammonia (Liquor Ammonie fortiss) and carbonate of copper. Measure half a pint of the ammonia and add it to two quarts of water. Weigh out an ounce of the copper, wrap it in a piece of fine copper gauze, and suspend it by a copper wire in the ammonia liquor. After standing one night, most of the copper will be dissolved, producing a bright blue liquid. Dilute with nine to twelve gallons of water, spray your Roses with a fine sprayer, and repeat at intervals of about ten days until new growths appear. You may also spray the foliage when it becomes fairly hard.

MISCELLANEOUS.

BIG-BUD ON BLACK CURRANT (*K. M. J.*).—Yes; the big-bud mite is present in some of the buds of the Black Currant, but not to any great extent. Perhaps, while the bushes crop well and give you large berries, it would be best to leave well alone, especially as no cure for big-bud is known. Meanwhile, some of the oldest branches might be cut right out and room made for young growths. Autumn is the best time to move Lupines and Phloxes, though they may be moved any time up to the end of March; but you speak of bushes of Lupines, and may, perhaps, refer to the Tree Lupine (*Lupinus arboreus*), which does not always take kindly to transplanting. It comes very freely from seed and the seedlings grow rapidly, so that new plants are easily obtained and new positions filled. Prune out the old wood of your York and Lancaster Rose.

GRUBS FOR IDENTIFICATION (*R. E. C.*).—The grubs are the larvae of the Raspberry weevil or of the clay-coloured weevil. They are exceedingly troublesome as pests, attacking the roots of a variety of greenhouse plants, including Begonias, Cyclamen, Pelargoniums, Gloxinias, Crassulas, Ferns, &c. They will soon be turning into chrysalides, which later become beetles (about the end of April or in May), and these feed at night on the foliage of various plants, or even attack young trees and damage the bark seriously. The beetles may be caught, when dark by taking the plant and shaking it over a piece of newspaper or the like, and killed by dropping into boiling water—they cannot fly. Besides picking the grubs out, the only method of dealing with them will be to make a hole in the soil of the pot and pour therein a few drops of carbon bisulphide, immediately filling the hole again.

MUSHROOM-GROWING IN LOAM WITHOUT THE AID OF HORSE-MANURE (*J. G.*).—If you can maintain a temperature averaging from 55° to 58° Fahr. in the shed, you would be more likely to succeed by laying your box or boxes on the floor—near the pipes, but not too near—than you would by placing them over the pipes. The position would be too dry and arid. As to the chances of success in the growing of Mushrooms in loam

alone without horse-manure, we cannot give a definite opinion. Why not try it on a small scale? They grow in loam alone out of doors. We do not think that leaves would help you. You can make the boxes of any size convenient to the position. A good size, we think, would be 3 feet by 2 feet, and 11 inches or a foot deep. Leave open spaces at the bottom, placing broken pots on the same, an inch deep, for drainage. Plant the spawn 5 inches apart in pieces the size of a small hen's egg, covering over half an inch deep only. Ram the soil very firmly before and after planting the spawn, and cover the surface with littery straw in rather a moist condition, to prevent the surface soil becoming too dry and to secure perfect darkness. Give a good watering (applying it gently through a rose) at the end of a month or five weeks, and Mushrooms should appear at the end of from six to eight weeks.

NAMES OF FRUIT.—*Constant Reader*.—1, Bess Pool; 2, Old Royal Nonsuch; 3, Boston Russet.

SOCIETIES

PERPETUAL-FLOWERING CARNATION SOCIETY.

THE twentieth exhibition of the above society was held at the Royal Horticultural Hall, Westminster, on March 29. Of the flower itself, and from the competitive standpoint in particular, only a small exhibition was got together, the two sections C and D, devoted to amateur members, being entirely unrepresented. Generally, too, the classes were not strongly contested, and the flowers, doubtless as the direct result of the long spell of uncongenial weather recently experienced, were not up to their usual high standard of merit. At the same time, there were many good vases of Carnations on view. No novelty received any award. No exhibitor competed for the Brunton Challenge Cup or Lord Howard de Walden's Challenge Vase, Classes 2 and 8 respectively. Many of the best exhibits remained from the previous day's meeting, a good display resulting.

SECTION A.—OPEN TO ALL MEMBERS.

The premier class in the show, the George Monro, jun., Silver-gilt Challenge Cup, value fifty guineas, for twelve vases of Carnations, twelve varieties, twenty-five blooms of each, brought two competitors, the Clury Carnation Company gaining the coveted award with an excellent lot of flowers. The set comprised British Triumph, White Enchantress, Baroness de Brien, Enchantress, Lady Meyer, Beacon, Sunstar, Gorgeous, Mrs. C. W. Ward (four magnificent vases), Lady Northcliffe, White Wonder and Enchantress Supreme, the last the weakest vase of a fine lot. There was room for considerable improvement in arranging the flowers, and the background was not, we thought, a happy choice. Messrs. W. Wells, Limited, Merstham, was second with a less weighty lot of flowers generally. Lord Kitchener was the finest deep pink, and with strong stems, which so many varieties lacked at this meeting, stood up well. In this respect Laura Webber (pink) and Aviator and Champion (scarlets) deserve special mention. Pink Sensation was very good. Mrs. George Lloyd-Wigg (white) required a few days longer to expand.

Messrs. Wells won the challenge cup presented by the American Carnation Society for three vases, twelve blooms each, of American novelties distributed since January, 1913. Their set comprised Aviator (scarlet), Pink Sensation and Good Cheer (cérise) a rather full-centred flower whose outer petals bleach rather badly at the edges. No other exhibitor staged.

Mr. J. C. Jenner, Rayleigh, won first prize for seven vases of Carnations in as many varieties, twenty-five blooms of each. He staged Mary Allwood, White Wonder, C. F. Raphael, Enchantress Supreme, Satin Robe, Salmon King and Carola, the last the finest of the set.

Mr. H. T. Mason, Hampton Hill, took the lead in a similar class for five vases, having Enchantress Supreme, Warrior (crimson, good), Beacon, White Enchantress and Lady Fuller (deep pink). Mr. J. C. Jenner was second, the whole lacking colour.

SECTION B.—GENTLEMEN'S GARDENERS AND AMATEURS.

No competitor appeared in the Lord Howard de Walden Challenge Vase class for a group of Carnation plants in flower.

For a dinner-table decoration of Carnations, Mrs. Alex. Robinson, Park Hill, Carshalton, was a good first, using Carnation Lady Northcliffe in conjunction with Thorn twigs, Salix sprays with catkins, old Blackberry foliage and Ivy in miniature sprays. The dark brown wicker baskets, too, were a feature. It was quite the best, while displaying originality of thought. Mr. W. Heath, The Gardens, Hylands, Chelmsford, who was second, used the same Carnation with Asparagus and Cytisus sprays. The exhibit lacked finish.

For a decorated vase or epergne of Carnations, Mr. W. Holder, Englefield Green, was first; and Major Sir Randolph Baker, Bart., M.P., Blandford (gardener, Mr. A. E. Usher), second. The arrangements were far from good.

In the decorative basket class there were three competitors. Mrs. A. R. Bide, Farnham, led, having the scarlet and white fancy Carnation Fanny (very good) with Croton and other foliage. Second, Major Sir R. Baker, Bart., M.P. (gardener, Mr. A. E. Usher). In a rather heavy arrangement, Enchantress, Circe and Mikado were used with Asparagus.

THE GARDEN.

No. 2317.—VOL. LXXX.

APRIL 15, 1916.

NOTES OF THE WEEK

Royal Caledonian Horticultural Society.—A meeting of the Council of the Royal Caledonian Horticultural Society was held in Edinburgh on April 4, when full consideration was given to the question of the holding of the usual autumn show, remitted to them by the annual meeting. After consideration, it was agreed that the show be held as usual this autumn. The dates fixed were September 6 and 7.

Raspberry and Blackberry Hybrids.—In our next issue we hope to commence a short series of articles, by Mr. W. F. M. Copeland, on Raspberry and Blackberry hybrids. It is not too late to plant these berries with the fair prospect of getting some fruit this year, providing that it is taken in hand at once. Mr. Copeland, who is growing these berries on a very extensive scale, considers the Newberry "by far the best of the berries on the market."

The Campernelle Jonquil.—This wilding from France, with Rush-like foliage and bright yellow flowers, is one of the glories of an English garden in spring. It grows to a height of about 18 inches, and the fragrant flowers are borne very freely. Our illustration, from a photograph taken in a Claygate garden, shows how delightful it is when naturalised in thin woodland or in the wilder parts of the garden.

Cabbages Between Roses.—Quite a number of horticulturists are following the Rev. W. Wilks' example of planting rows of Cabbages between Roses. Doubtless the Cabbages will render a good account of themselves in beds which have been heavily manured and liberally treated in past years, but, in most instances, it will be found advisable to prune the Roses with unusual severity.

Roses in Winter in Ancient Rome.—It is known that rich Romans in the times of the great Emperors were able to procure Roses in winter when the occasion demanded them. We believe that the method of their transportation has always been something of a mystery. We lately came across the following suggestion of the plan adopted in Egypt, which was the source of the supply. The Roses were planted in vases and boxes and grown on until the plants were well in bud, which were just about to break, when

they were despatched post haste to Rome, so that on their arrival there they at once commenced expanding. It would be interesting to know if this supposition is generally considered to be the true one by our classical scholars.

The Heathery in 1838.—The Heathery in 1916 means a small bit of rocky moorland introduced into a modern garden in the same sort of way as a rockery—if such an out-of-date word may be used—and for a similar purpose, viz., to contain hardy Heaths of all kinds. In the year when the great Queen ascended the English throne, the word had a different meaning. Cape Heaths were then all the rage. Every self-respecting garden grew some. The more important had houses built expressly for them, just like our

explorations in China and Tibet; will be interested to know why he was not present. As the chairman anticipated, the storm which was then raging was responsible. In passing Stafford the storm zone was entered. All telegraph wires were down on both sides of the line, and as a result the train had to be flagged into and through each section, and it did not reach the City till 9.30 p.m. His inability even to send a wire added to his sense of discomfort. He hopes it will be possible to arrange for the lecture to take place on another date, either later on this year or early in 1917.

Transplanting Herbs.—The present is a good time to look over the herb garden, transplanting, where necessary, those raised from seed last season. Sage and Thyme are in demand in most places, and it is best to raise a few plants from seeds annually. Mint and Tarragon are better for being broken up periodically and transplanted in fresh soil. We have found Tarragon, however, to lose all its flavour when left a long time in one place, and when this occurs a fresh lot should be raised from seed. There are also spurious forms of Mint in cultivation, which an observing cook will soon detect.

Sowing Onions.—The main crop should be at once sown. James' Long-keeping and Brown Globe are excellent sorts, giving a maximum crop, the bulbs keeping a long time. The soil should have been deeply dug in the autumn and forked over since to obtain a fine surface, choosing dry weather

for the work. Rake over the surface evenly and smoothly, so that the drills can be drawn at a uniform depth of an inch or so and 1 foot apart. Sow the seed thinly and cover lightly with wood ashes; afterwards fill in the soil from the drills and rake smoothly over. In light or sandy soil the surface, before sowing, should be made quite firm either by treading or with a roller, as the bulbs mature more regularly in firm than in light soil.

* * * Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.



THE CAMPERNELLE JONQUIL NATURALISED IN THIN WOODLAND IN A SURREY GARDEN.

Carnation and alpine houses, and these erections were called Heatheries. "Chelsea" eighty years back would have had a great part of its mammoth tent filled with Ericaceæ. A few solitary specimens were the only ones to be seen there in 1915. The "Hortus Ericæus Woburnensis" still exists to tell us what a sumptuous collection of a century ago was like; and we may still read McNab's treatise to show us how they were then grown.

Mr. George Forrest's Lecture.—Readers who attended the fortnightly meeting of the Royal Horticultural Society on March 28, hoping to hear the lecture by Mr. George Forrest on his

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Sparrows and Polyanthuses.—Last spring I had similar trouble with sparrows eating the flower-trusses, and found that, as you advise in *THE GARDEN* for March 11, a few short sticks with cotton criss-crossed, placed among the plants, is an effective preventive. The birds when folding their wings just before alighting touch the cotton, which they apparently have not seen, and this alarms them, as they evidently fear it is a trap. — CECIL BARTLETT.

Apple Claygate Pearmain.—

I was exceedingly interested and pleased to read the remarks concerning this variety, and also to see the photograph of some old trees growing at Claygate, issue March 18, page 135. This variety when seen at its best is, in my opinion, one of the most worthy dessert Apples in cultivation. I can remember this variety as far back as I can recall anything about fruit, as there were, in the gardens of which my father had charge, two particularly fine trees, which were always held in high esteem. I knew the trees at Claygate quite well—they were then under the care of my old friend, Mr. J. Child. These were remarkable trees in those days and produced fruit of the finest quality, but I think your correspondent "C." must be wrong as to the date (1849), when fruit was first shown at the Royal Horticultural Society's Fruit Show; it must, I think, have been many years later. Unfortunately, trees erroneously labelled Claygate Pearmain are not uncommon, but in my opinion the genuine article is well worthy of extended cultivation. By the way, when talking of the late Mr. Child, I well remember seeing what seemed to me an exceedingly fine tree of Blenheim Orange growing close by the variety which I have just mentioned. It was symmetrical in form and, being just about in its prime, carried no less than forty-two bushels of magnificent fruit, the like of which I have seldom seen.—E. BECKETT, V.M.H. [Mr. Beckett will be interested to learn that the grand old tree of Blenheim Orange to which he refers is still standing, and that, despite its great age, it continues to bear crops of remarkably fine fruit. The older inhabitants of Claygate regard this tree, together with the veteran trees of Claygate Pearmain, with profound respect that one might almost call reverence.—ED.]

Anemone caucasica.—The "Kew Index" states that *A. caucasica*, Willd., is *A. blanda*, and if this is Willdenow's plant, it certainly is related to the better-known Greek species, for although above ground it looks more like a

nemorosa form in its leaves; its underground portion is a solid little tuber and not a running rhizome. The result of one's order for roots comes as round, black nodules no larger than a peppercorn, yet this tiny thing can produce two or more flowers and a leaf or so. Of course, one would not expect them to be very large, and I find the fully open, starry flower is just the size of a sixpence. It is of a lovely blue, not quite so purple on the back as when open, and stands above a dainty little involucre of three five-fingered leaflets, which are tinged with red and purple tints. It would not make much show in a large herbaceous border, or as part of a

young foliage. It appreciates a half-shady position in good loamy soil not too dry, and soon forms a handsome but not a rampant plant. It is so distinct from all the small Saxifrages and bulbous plants that bloom at the same season. Another point in its favour is that it is apparently distasteful to slugs and receives no attentions from them.—N. G. HADDEN.

Rose Gloire de Chedane Guinoisseau.

With regard to the flowering powers of this Rose perhaps it is one of the Hybrid Perpetuals that likes a Tea Rose soil, as Frau Karl Druschki does. Mr. Drew of Longworth (whose Tea Rose soil is *par excellence*) can grow it and show it to stand

first of twelve of one variety. I am not sure if Mr. Prince has done so, but I think he has. With regard to Frau Karl Druschki, I grew a dozen plants of this a few years ago in a bed made for exhibition Tea Roses, and was able to cut fifteen blooms to take to a show, and only had to untie and open eight blooms to be an easy first in a class for six of one variety, against eight competitors. As the bed these flowers were grown on was made up specially for the benefit of Tea Roses, which did remarkably well, I think the results prove that the white Snow Queen liked her quarters.—NORTH OXFORDSHIRE.

—As a reader of your valuable paper, I should like to say how pleased I was with the excellent article on that most beautiful Rose Gloire de Chedane Guinoisseau, issue April 1, page 161. I do not profess to be a Rose grower of the "National" order, as I have only been Rose growing for the last three years, but one of the first Roses that I obtained was the variety named, from which I had only nine blooms the first year from a plant cut down to three or four eyes. The next year I cut it back again, with about the same results; but last spring when I was pruning, I thought why not try these good shoots, about 4 feet high, pegged down. So I pegged the three best shoots down and cut the rest to within three to six eyes, with the result that I cut ninety-four blooms from one tree last year 85 per cent. of which were good

enough for local showing. I cut one bloom 6 inches across, on August Bank Holiday, and three more over 5½ inches—and our show cancelled owing to the war! To anyone who wants a good Rose I recommend Gloire de Chedane Guinoisseau pegged down.—W. COUPE, III, Nottingham Road Mansfield.

Freesia Purity.—I was pleased to observe the reference to and illustration of this Freesia for I have long been waiting to learn how this American variety succeeded over here. Purity has for three or four years been the recognised leading Freesia in America, for when first exhibited all the leading American commercial grower recognised its value, so much so that the raise



THE VETERAN BLENHEIM ORANGE AT THE FIRS, CLAYGATE, SURREY.

colour scheme; but on a level ledge of the rock garden, between miniature cliffs of choice Saxifrages and Primulas, it is a lovely little gem.—E. A. B.

Synthyris reniformis.—This beautiful North American plant appears to be little known by the majority of rock gardeners, but it is of very considerable value, since it flowers so early in the year. Its spikes of dainty bluish mauve blooms begin to open early in March and remain attractive for several weeks. The somewhat leathery, dentate, bronze green leaves are remarkably handsome, especially when they first unfold. This Synthyris is absolutely hardy, but should be given a rather sheltered nook lest piercing March winds nip the

arranged for the rapid development of his stock in California. There is, by the way, an improved Purity, and within the past month a still greater improved form has been brought to light by a Long Island grower named Allan. This latest comer is said to be very strong, growing over 2 feet high.—T. A. W.

Rosa rugosa alba.—I do not think any of your correspondents, in mentioning rugosa alba as a pure white Rose, have noted the peculiarity of this Rose, viz., that its buds are not white at all, but a unique and extraordinary very pale pink. As seen against the lovely green of its foliage, these (almost transparent) long, pale pink buds present a very remarkable effect, and one which cannot be forgotten.—BORIS.

Narcissus W. P. Milner Grown in Fibre.—The show in Vincent Square on March 14 only strengthened my opinion that the smaller Daffodils are by far the more graceful and dainty. The monster trumpets, like Van Waveren's Giant and King Alfred, are essentially a man's flower, and have too much the look of prize cattle in a show ring; whereas such dainty flowers as W. P. Milner, Queen of Spain and the lovely little Hoop-Petticoats might be "The Ladies of St. James" themselves. On my return home I found my own little bowl of W. P. Milner in perfect condition. The whole flower, with its deliciously crinkled trumpet, is the same lovely primrose shade as the trumpet of Mme. de Graaff (that peerless flower), and it keeps its colour well. I was greatly pleased to find Mr. Pearson (in THE GARDEN of March 25) advocating the use of the smaller Daffodils for pot culture, and W. P. Milner in particular.—W. D.

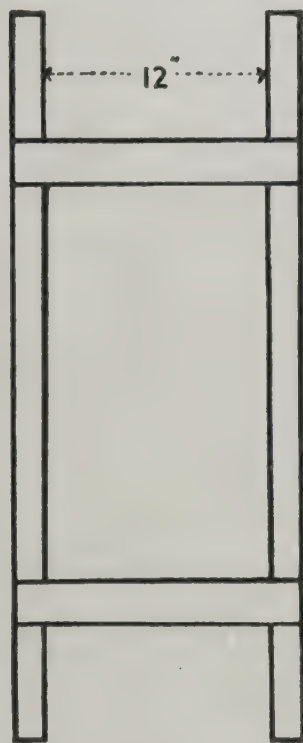
Templetonia retusa.—This Australian leguminous shrub, which is alluded to by Mr. Woodall in his "Notes from the Riviera," page 127, issue March 11, used to be at one time grown in this country far more than it is now. It belongs to the fast dwindling class of hard-wooded plants, whose growth in most cases is far too slow for present-day ideas, while considerable care is necessary to keep them in a flourishing state. In my young days this Templetonia was, with Hovea Celsii, regarded as a good test of the cultivator's skill; that is, to obtain a good, shapely, yet healthy and well-flowered specimen. In colour the blossoms of the Templetonia are very distinct. Mr. Woodall regards them as Indian red. The glaucous tone of the leaves is also very pretty. In order to succeed in its culture under greenhouse conditions, this Templetonia needs much the same treatment as a Chorizema; that is to say, a compost made up of peat and loam with a good sprinkling of silver sand. Potting should be firmly done, and care taken not to bury the stem deeper than it was before. Effective drainage and careful watering are also essential.—H. P.

Gas Lime and Club Root.—About twenty-two years ago I first used freshly slaked lime and salt as a preventive of club root in a large garden I had then taken charge of. The treatment was quite successful, and afterwards I sent remarks on the result to the gardening Press, and have had occasion to do so several times since. Perhaps the friend referred to by Mr. E. T. Ellis in THE GARDEN of April 1, page 154, adopted the plan after reading my notes on the subject, as many others have done, as the quantities and dates of application referred to are identical to those recommended. Winter greens suffered most in my case. This family of plants had been grown

in the same position, for a special reason, for nearly a hundred years, and consequently club root was very prevalent. I had rather more than an acre of such greens, and so the remedy was an important one and simple to apply. It has been successful ever since. The soil was of a light nature, and the salt tended to keep it moist during the summer months. Of late years I have found unslaked lime more efficacious than slaked. It should be broken rather fine, so as to ensure an even distribution. Two pecks of unslaked lime per rod is quite sufficient, and an application should be given in alternate years. The peck of agricultural salt per square rod should, however, be applied every year in the case of light land.—GEORGE GARNER.

A War-Time Vegetable.—Shall I—dare I—risk the disdain of the ducal gardeners who peruse THE GARDEN? Yes; I will chance it! For some of THE GARDEN readers know that I am (so my nieces say) "frightfully faddy" about vegetables. "Now then, out with it, Aunt Anne!"

We have been eating Swedes (!) this winter, cooked in several ways—to wit, plain boiled and served in round slices, mashed with butter, purée in



FRAME WORK USED FOR MAKING PARALLEL DRILLS.
A.—SECTION OF A LATH.



soup, mixed in curries and so on; and, were His Majesty to come this way, I should have no hesitation in serving mashed and buttered Swedes as "a dainty dish to set be-

fore the King." It would probably have also the charm of novelty, for I do not suppose His Majesty has ever tasted them. I grew the Swedes for Angelina (my donkey) and the goats and chickens, but the roots, when lifted to store, looked so good that, knowing other poor country folk cooked them, we tried them, and found them excellent (rather better than most winter Turnips). So the livestock on this "small holding" only get the parings, and "Blackbird Bungalow" devours the bulk of them. The colour, a bright apricot, is very attractive in garnishing dishes of curry, &c., in combination with rice and green vegetables. (The variety of Swede we grow is Toogood's World's Best.)—ANNE AMATEUR.

FORTHCOMING EVENT.

April 18.—Royal Horticultural Society's Daffodil Show (two days), 1 p.m. to 5 p.m., Vincent Square, Westminster. Broughty Ferry Horticultural Association: Lecture by Mr. J. S. Chisholm, Edinburgh and East of Scotland College of Agriculture.

FIRMING THE SOIL AFTER SEED-SOWING

YOUR correspondent Mr. C. Bartlett, in THE GARDEN, issue March 25, page 144, calls in question the wisdom of making the surface of soil firm after seed-sowing. For many years I held the same opinion, namely, that firming the soil was a mistake; but observation of the growth of weeds has led to the opposite opinion. I have noticed for some years, and workmen have called my attention to the same, that weeds always germinate sooner, and more quickly make plants on the pathways between flower-beds, than they do on the beds themselves. This can only come about from one cause, namely, that the soil is firmer on the paths, for *all* the soil had been turned over at the same time. The weeds in question have been of various species—Grass, Chickweed, Groundsel, &c. Now it seems fair to suppose that if weeds of many species germinate and grow more readily in firm soil than in loose, vegetable and flower seeds sown as garden crops will in like manner benefit.

Mr. Bartlett rather pokes fun at the methods of our grandfathers in rolling their Onion-beds and patting down their seed-beds; but have we not seen over and over again that habits and customs of the past have been the outcome of experience, and have been proved correct in the light of science? Did not farmers know of the good effects of growing Clover on their land long before science taught us about the bacteria-stored nodules on the roots of leguminous plants?

To quote Mr. Bartlett again: "The patted soil soon hardens and cracks," &c. I think that depends upon the condition of the soil when seed was sown. If it were at all sticky or over-moist, the patting down would cause the surface to cake as it dried; but if the soil were rather dry at the time of sowing, no ill-effects would accrue from firming after sowing. Perhaps the best plan would be to be guided entirely by the soil condition at sowing-time. If at all inclined to be over-moist, refrain from any pressing down; if, on the other hand, the soil be on the dry side, I feel sure that firming would be beneficial.

My own practice in sowing vegetable seeds is to dig the ground, give sufficient time for the soil to become workable with a rake, rake down until level and fairly well broken up, then if too light tread it until fairly firm; rake again to make smooth, fine and level. To form the drills I use a frame formed of two laths 12 inches apart, held together by two strips of wood. The section of laths is thus the apex of the triangle; A comes in contact with the ground. The frame is laid across the bed, taking care that it is at right angles with the path; one then steps on to the laths and presses them into the bed, making neat, straight and perfectly parallel drills. To keep the drills right, one bar of the frame must always be put into the last one made. I find this method very much quicker and entails much less stooping than laying down a line and scratching out the drills with a pointed stick or the corner of a hoe. After covering the seed—which should be done by working the rake up and down the drills, not across them—I turn up the handle of the rake skywards and bring the head (with teeth now parallel to the ground) smartly down until all the bed is covered with teeth marks. This method makes the soil firm enough without leaving

it too smooth and solid, and I find it does not cause the soil to cake. One great point in seed-sowing is to catch the soil in the right condition, and I would rather defer the work for a week or two and chance being a little late than risk sowing when the soil was too cold or over-moist.

Now a word as to the best method of sowing the seed or dribbling it into the drills. After trying a number of ways, I have found it easiest to sow out of the seed packet. Cut the flap through with a knife so as to make a straight edge; then, holding the packet at right angles to the drill, give a series of gentle shakes, at the same time moving the packet along the drill. I think seed can be more quickly and evenly distributed in this way than by most of the methods usually employed.

J. DUNCAN PEARSON.

The Nurseries, Lowdham, Notts

THE 1915 "DAFFODIL YEAR BOOK"

MR. ENGLEHEART'S final remarks might well have been left unnoticed by me, and would have received no reply were it not for the travesty of the real position which, on retiring, he places before your readers. It is the reverse of the fact that I have "swept away"—as well as Mr. Engleheart—the views and opinions of the array of big names which, *more suo*, Mr. Engleheart seeks to bring up for his assistance. With the sole exception that I had to point out that Körner and Oliver's laboratory experiment with the pollen grains excluded the practically important matter of getting rid of superfluous moisture, I have not sought to "sweep away" the dicta of these very competent authorities, but have simply shown that Mr. Engleheart's misunderstanding of them led him into the error of supposing that they supported him.

Yes; even thirty years of "dabbling" may leave a person still in the position of a learner, however unwilling one may be to realise it.

And anent White Emperor and its ancestry, I notice that Mr. Engleheart does not contest the main point, namely, that reversion may, as I indicated, be not only, in this case, to an Ajax ancestor, but also may be to any variety, not Ajax, the pollen of which had affected any of the ancestors of the immediate Ajax parents, even in a comparatively remote past. Mere reiterated assertion that a variety is an Ajax will not make it one.

Lastly, as to the status of the Royal Horticultural Society's Code of Measurements, the question still remains: Is the system to be the real authority, or has it to be diluted by what the raiser happens to think a "common-sense certainty"? This must be for the Council of the Royal Horticultural Society to decide.

A NOVICE.

PERPETUAL-FLOWERING CARNATIONS

APRIL, like March, is a busy month, and more so during the present season, because the midwinter conditions and weather of March have put things back a good month. Young stock was standing still, or at least marking time, for a large portion of the month, when duller and colder days were experienced than during December and January. Like the sailor who is reputed to

semi-established—that is to say, when their roots reach the sides of the pots—shading is not necessary, and full air (of course, avoiding draughts from the side ventilators) may be given them. When in a semi-established condition, care must be given to watering, a daily sprinkling overhead in sunny weather being better than much water at the roots. Of course, April is a fickle month. We may have full and warm spring conditions or quite wintry weather. One must treat the plants accordingly.

Potting On, before anything, must be considered, for just as one knows the futility of shutting a stable door after a horse has escaped, so should the cultivator of Carnations realise that it is of the utmost importance to keep his young plants on the move, so as to avoid all risks of them becoming hard through being kept in one pot too long and starved.

How to Avoid Stem Rot.—

In winter, and sometimes, indeed, before then, plants may die off for no apparent reason. Sometimes only part of the stem will die off, but at other times, and more frequently, it appears to rot off at the surface of the soil. This is known as stem rot, and it *may* be caused by too moist an atmosphere and a lack of sufficient ventilation. The most fruitful reason for stem rot, however, is a too deep potting of the young plant, which frequently commences when potting the young cutting for the first time from sand. The young cutting should not be placed more than half an inch in the soil. Sometimes one sees a young cutting 1½ inches in the soil, and then when subsequent pottings take place it is put lower and lower until, when placed into its final pot, the bottom of the stem whence emanate the roots is 2 inches to 3 inches deep. This is quite wrong and is often the cause of trouble, for while it is by no means certain death to a healthy plant, it is likely to cause stem rot, a most distressing malady; hence now is the time to guard against it and to avoid potting plants too deeply.

Fumigation for Fly.—That little pest the aphid or green fly does not always get the full credit for the mischief that he not only does but originates. The green fly should be destroyed by fumigation immediately he is noticed, for already he has done damage to the young, undeveloped growth. It is advisable to fumigate twice in a week to make certain of destroying all the fly, choosing evenings when there is little wind, because the first fumigation seldom eradicates the pest entirely, and, by fumigating a second time, any that escape the first operation are killed. It is a good plan at this time of year to thoroughly syringe the plants the day following fumigation.

LAURENCE J. COOK.



NARCISSUS JONQUILLA SIMPLEX, ONE OF THE PARENTS OF THE BEAUTIFUL PHINEAS. (Described on page 182.)

have answered, when asked what he would like most of all in the world, that he should have "all the beer and all the baccy," and then, when given one more wish, said, "a little more beer and a little more baccy," sun and fresh air are the desire and essentials for the life and development of the Carnation, be it of the young plant or plant of flowering size.

Shading.—In view of the foregoing remarks it may sound inconsistent to shade from the health-giving rays of the sun, yet it should be borne in mind that freshly potted young stock, and especially cuttings, are in a weak state through the process of propagation. When, however, they are only

NOTES FROM MYDDELTON HOUSE GARDEN

By E. A. BOWLES, M.A., F.L.S.

THE foretaste of spring, ushered in by St. Patrick's festal day, was soon spent, and, as most of us know to our cost, was followed by cold rains, sleet and snow. These were bad enough to bear with, and robbed the early Daffodils and the late Crocuses of much of their beauty, but then came Tuesday night's blizzard. In half an hour the windward side of every unprotected thing was coated with thick ice, formed out of the large snowflakes hammered together by the tremendous force of the wind. The following half-hour brought gusts of wind of such violence that more damage was done to this garden than a century can repair. The grand old Cedar was torn up by its roots at the same time as its lifelong neighbour, a very handsome Robinia. The two lay side by side, their branches intermingling for the first time, and I suppose ought to suggest all sorts of beautiful ideas about being united in death, and so forth. But all such thoughts are driven out of my head by the horrible fact that these two giants crashed right into one of my most protected borders containing many good specimen plants. It was bristling with promising crowns of Eremuri, red shoots of Liliun Henryi, and many a treasure. Three days of hard work have enabled us to clear off the boughs from this bed, and the general appearance of the plants is appalling. Some Eremurus leaves look more like boiled Spinach than their own stately selves. A tall Azara microphylla and a fine standard Ceanothus Gloire de Versailles might be anything between a broken clothes prop and a stick whittled by a blind idiot, and the whole border looks as though the contents of a giant's salad bowl had been poured out on it. Crown Imperials, Daffodils, Tulips, Liliun testaceum all minced fine, and garnished with Cedar cones. This, then, is not a very propitious moment in which to sit down and write notes from Myddelton House Garden. Every way one looks fresh damage may be discovered. Three of the limbs have been wrenched out of my fine Acacia dealbata, only leaving the two weakest, and they are scarred and torn so badly I doubt whether they can heal up and live. There is quite a bright red tint on the ground for many yards in front of a Cydonia japonica, that has had its buds torn off, and large branches have fallen from the old Scots Pines, and have splintered and torn the bushes and plants they fell on. However, down in the rock garden, on the southern slopes protected from the wind and ice, some plants look as though they knew only halcyon days.

Anemone blanda scythinica is one of them, and in to-day's first sample of April sunshine is the most beautiful thing in the garden. It generally flowers a little later than the typical A. blanda, and its first flowers appear very little earlier than those of its Italian relative, A. apennina. Their great charm lies in the wonderful contrast of the outer and inner surfaces of their sepals. In bud, and when closed after sunset, the flowers appear to be rich sapphire blue, but when fully expanded in the sunshine, pure white. Individual plants show much variation, and the forms I like best have the six or eight outermost sepals backed with blue, and those of the inner whorls pure white, or but little streaked with blue. When such flowers are half expanded the effect of

contrast is exquisite. In some forms all the sepals are backed with blue, and if seen at the right angle, so that the back is most in evidence, and only one or two recurved tips show the white upper surface, quite a distinct effect is obtained. Scythinica is a very free seeder, and when grown close to the typical blue forms many of the offspring are dark or pale blue on the upper surface, and some of the latter with the characteristic dark back of the scythinica parent are very beautiful. It is spreading freely in one

the two there is no excuse for destroying the precious Anemones, in the love of tidiness that demands instant death for such weeds as those annual Veronicas.

Scilla bifolia carnea is especially good this season. Possibly the sunless days of the last fortnight have helped to preserve its delicate flush of pink, which is generally so fleeting that it is only seen on the buds and newly opened flowers. This year the spikes are unusually full of flowers, and the soft salmony pink of the anthers adds a delightful touch of colour to the delicate rosy tints, shell pink on the buds, and like the whitest part of a very fair baby's eyelid on the open flowers. This variety and the charming rosy lilac one called rubra flower much later than other forms



ANEMONE BLANDA SCYTHINICA.

(From a drawing by E. A. Bowles.)

part of the rock garden, and self-sown plants appear in all sorts of places one would never dream of planting them in. Some have even grown in narrow cracks of big rocks, and, of course, look extra beautiful arching out from the rock face. The seeds are mature and fall while still green, sometime in May, and if left alone will sow themselves and appear in quantities round the old plants too thickly to thrive. To prevent this crowding, it is well to gather as many as possible and scatter them further afield. The young plants look very much like some of the annual Veronicas, but the cotyledons of the Aneigones are more glossy and pointed than those of the Veronicas, and once one has compared

of bifolia. They do not seed here, and are so slow of root increase that I have very few of either after carefully nursing them for a score of years.

Few people grow the Dentaria group of Cardamine, but all its species are very worthy of places in cool borders. The "Kew Hand List" decrees that we should call them Cardamine, as though they possessed no interesting scaly rhizomes and shot up their flower-stems in the ordinary, straight-ahead fashion of Lady's Smock and that pestilential weed Cardamine hirsuta; whereas they arch through the ground, first the bent stem, then the nearly mature flower-spike pulled up after the manner of Winter Aconite and Wood Anemones. So, for these two marks of originality

and because Nyman in his as yet unsurpassed *Conspectus* allows the Linnaeus genus of *Dentaria* to stand good, I choose to do so too. With me *Dentaria polyphylla* is always the first to hook itself out of the ground, and is one of the best, its creamy yellow flowers distinguishing it from any other I grow. They have the look of a rare plant, whereas the somewhat magenta pink of *D. digitata* gives it rather a common air—that of *Honesty*, some *Clarkias* and *Godetias*, and other flowers of thin substance. I always feel the same about *Epilobium luteum*. Its flowers are really very pale and poor as a yellow, but in a family with so many members garbed in crude bluish reds it seems a gem, an original genius. Then again, *D. polyphylla* has associations for me, reminding me of the day I saw it growing in the woods on the Brenner among a glorious form of *Soldanella montana*. I still regret that after a long day's collecting among the melting snow above, I was weak enough to yield to the discomfort of a hat that leaked and streams of rain-water running down my neck, and hurried down to a fire and food instead of diligently digging a larger store of this delightful pale yellow Tooth-Cress.

DAFFODIL NOTES

BY THE REV. JOSEPH JACOB.

Daffodils Before the Royal Horticultural Society's Narcissus Committee on March 28.—After the blizzard of Monday night, it was a cheery

sight to find a fair assemblage of flowers and members in the committee room when our chairman, Mr. E. A. Bowles, took the chair. Two awards were given and one recommended. To deal with the recommended one first. What happened was, two jolly little plants in 3½-inch pots, looking so smart and well groomed, stood before us on the table, and announced, in the way all these claimants for honours do, that they were small Portuguese people who had been sent over by Baron de Soutellinho of Oporto, to be brought up by Messrs. Barr and Sons, and that their mother was Mrs. Cyclamineus and their father Mr. Soleil d'Or. "That is *most* interesting," said Mr. Engleheart, "the pollen of Soleil d'Or is practically infertile with me. I have given up trying it." This experience was corroborated by both Miss Willmott and Mr. Leak. It was evident we had a very uncommon stranger in our midst, and whether it was the more genial climate of Portugal, or whether it was some strange turn of the wheel of fortune, there was a unanimous feeling that nothing but a botanical certificate would meet the case; and so, up it was sent to the Lords of the Scientific Committee with a strong plea that they would grant this favour. The illustration shows the habit of the plant and the contour of the flower, which it is only necessary to say had a deep yellow perianth and quite an orange-toned cup. The Scientific Committee gave a botanical certificate at their afternoon meeting, when, in company with another pale yellow and white hybrid (*calathinus* × *cyclamineus*), from Mr. Herbert Chapman, it was placed before them with the Narcissus Committee's recommendation.

To come now to the awards. One was given to a very refined bicolor giant *incomparabilis*, *Centurion*, for growing in pots. I particularly admired the symmetry and elegance of its cup, which, opening a good yellow, changes with age to a deep primrose. It, as it were, stood on such nice small feet. The perianth was round in contour and nicely imbricated. It was raised by Mr. Worsley of Clifton, and exhibited by Messrs. R. H. Bath. It gained the first prize at Birmingham in 1913 in the bicolor *incomparabilis* class when shown by Mr. A. M. Wilson.

Cymry was the second variety to receive an award. It is a yellow *Ajax*, quite a self, with the same stiff, starry and symmetrical segments that distinguish the smaller *Tenby*, of which it might be described as an enlarged replica. It was raised by Mr. T. Batson, and in his garden at Beaworthy, North Devon, it blooms, just before *Golden Spur*, on nice long stems from 18 inches to 20 inches in height. The award was given for "garden" purposes.

Before the general business of the meeting commenced, Mr. Engleheart produced one of his well-known boxes, neatly lined with white tissue paper, wherein was a little bunch of the pinkest trumpets that I have ever seen. Afterwards I begged hard to be allowed to have a coloured lantern slide made of them for a lecture on Daffodil developments which I am "down for" at a certain Tuesday meeting of the Royal Horticultural Society in May. But no. They were not up to the mark. I must wait until another year. We were told that there were now about twenty bulbs of it; so, all being well with England and Engleheart and myself, I hope not to wait in vain.

Fusarium.—The following resolution, which was proposed by myself and seconded by Mr.



THE PALE YELLOW NARCISSUS CYCLATHINUS (*N. calathinus* × *N. cyclamineus*). Slightly reduced.

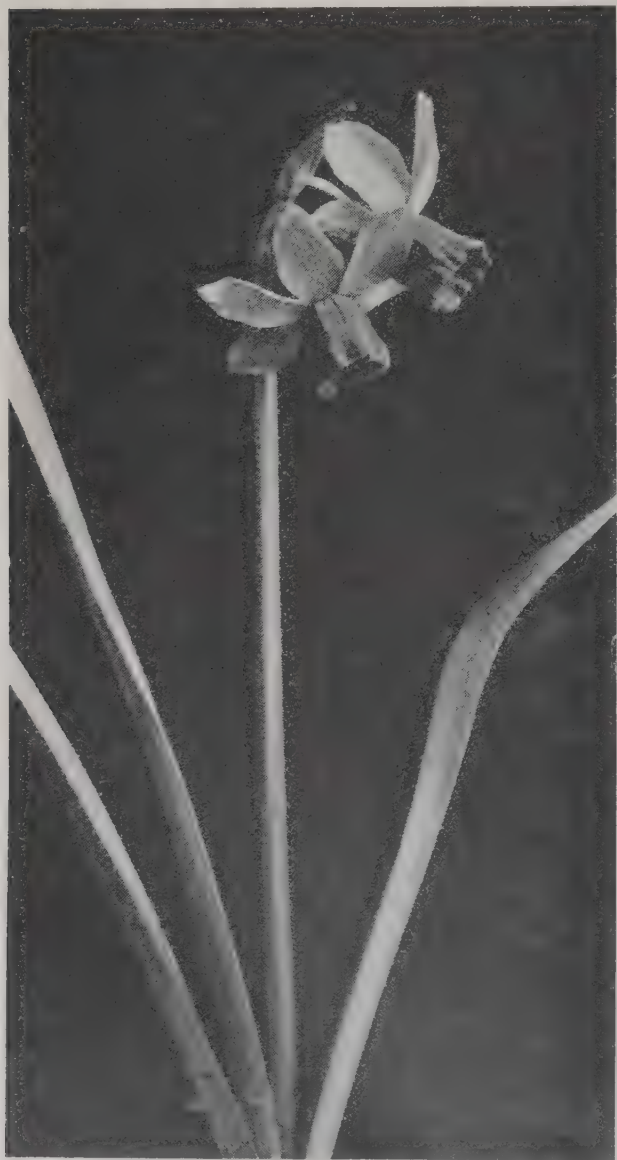
C. H. Curtis, was unanimously passed at this committee meeting: "The Narcissus and Tulip Committee, realising that *Fusarium* is steadily increasing among Daffodil bulbs in both private and trade gardens, hereby requests the Council of the Royal Horticultural Society to cause investigations to be made at Wisley with a view to the publication of a report dealing with the nature of the fungus and its attacks, and, if possible, suggesting methods of combating its ravages." This means we have given Dr. Keeble and the scientific side of Wisley something to do. Comparatively little is known for certain about its way of life and its subtle methods of attack, and as a natural corollary we are very much in the dark as to the best means of defence. Blessings upon the Doctor's and his assistant's head should they develop into St. Georges and slay this menacing dragon.

Barr's Groups.—Were it not war-time I would have unhesitatingly have written that this great Daffodil firm is waking up "like a giant refreshed with wine." Perhaps, however, they have copied Samson, according to the following little refrain on an old christening cup in my possession:

"Drink from the bubbling fountain, drink it free;
'Twas Samson's drink, 'tis good for thee."

The wine or the bubbling fountain (only I do not expect it was a free drink) is their Cornish garden at Penzance, once the home and workshop of Mr. Charles Dawson. It was a bull's-eye when the firm acquired this plot of ground in the English Riviera.

I look forward to silver-gilt Flora medals being to them like gold in the days of King Solomon. The procession of flowers has begun: *Yorick*; then *Brian* and *Sparkler*; then, on the 28th of last month (1) *Phineas*, a very shapely *Jonquil* hybrid of delightfully smooth texture, which, were its parentage not known, might pass as a short, *Nelsoni*-cupped yellow *incomparabilis*; (2) *Golden Sun*, an *Ajax* variety, which, notwithstanding



AN INTERESTING LITTLE HYBRID FROM OPORTO: *N. cyclamineus* × *N. Soleil d'Or*.

its poor perianth stood out because of its wonderful deep orange yellow colouring; (3) Dom Pedro, a squat yellow Ajax of great substance. (A well-known market grower sampled it as I was standing by. He felt the tips of the segments. They were hard and firm. "That will make a grand market flower," was his comment. The same might be said of it for show.) Lastly, there was Isis (3A), a flower very much after the style of the Dutch-raised Miss Willmott. The yellow cup has a narrow edge of red, and the segments are yellowish white. If the stricter requirements of the showman postulate a pure white perianth,

PLANTING FOR AUTUMN EFFECT

BY GERTRUDE JEKYLL.

THESE would still be time, if the work is taken in hand at once, to make some arrangements of plants that would give beautiful effects of colour combination for the late summer and autumn. Some of the most refined and effective of these tone pictures are those that are in colourings of pink, white, lavender and purple.

some groups of the purple Gladioli, such as Blue Jay and Baron Hulot, and for pale pink the lovely America.

Within the first fortnight of May should be sown some pink and white annuals. For whites, Gypsophila elegans, white Jacobea and white Linaria; for pink, best of all, Godetia Double Rose, a plant that is not only beautiful in the border, but of great value for cutting. Then among the Asters of medium height nothing is better than Lavatera trimestris of the old, pure, tender pink colouring, avoiding the so-called improved variety, whose colour, though stronger,



AUTUMN FLOWERS AT KELLY HOUSE.

there is no denying the fact that very many of the public like those which are not.

CIMICIFUGA RACEMOSA

This is one of the floriferous hardy plants greatly utilised in gardens. It is a handsome North American species with beautiful foliage and long spikes of white Spiræa-like flowers, which are very attractive in July and August. It grows from 5 feet to 6 feet high, and is well suited for planting near the back of the border. DAVID ARMSTRONG.

with grey foliage. Where the work of preparation has been done in the autumn, there will be Lavender and China Roses, with Gypsophila, Japanese Anemones and Echinops as a solid foundation, and where these occur it is easy to add some summer flowers and annuals. But if the combination has to be made afresh, it may best be done by transplanting some autumn-divided roots of some of the September-blooming Michaelmas Daisies, such as the strong-growing Robert Parker for tallest, with F. W. Burbidge and Margaret for medium height, and Amellus and acris for the front. With these there may be

has a suspicion of rank quality from which the older one is quite free.

Then of half-hardy annuals there will be the best of the purple and white China Asters, choosing them within the Ostrich Plume, Comet and Victoria classes, with the taller Mammoth, formerly known as Vick's White. Heliotrope and Ageratum, both tall and dwarf, will come in the front of the border, and it is well to leave places for dropping in pots of Lilium longiflorum. If the border is of some width, Hollyhocks, white and pink, should have been provided in the autumn, with white Dahlias planted this spring.

NOTES FROM THE RIVIERA

BY EDWARD H. WOODALL.

The Seeding of Ophrys.—There are, I see, some ingenious theories about the seeding of Ophrys, and it is said that a small insect is required to fertilise these quaint blooms which so mimic a bee or a drone, a fly, or even a little looking-glass, that one is lost in conjectures as to the purpose of these "impersonations." In my valley, which has been left to Nature for now fifty years at least, there are many of these quaint flowers, which year by year puzzle and delight me. Which are species, which varieties, why do they appear in quantity for one, two or three years perhaps, and then disappear suddenly? either to turn up some hundreds of feet away, or to remain dormant for years, and then appear again in quantity. Scarcely ever do I find a fat, full capsule of seed, yet evidently they do propagate themselves far more successfully than I can understand. The spring before the war I found a nice group of a very pretty Ophrys more like the Bee Orchis than anything else, but pinker and creamier in the sepals, and lighter in the lip than that well-known species, which does not flower here till the month of May, while this flowered in March. This year I went to look for my friend towards the end of March and could only find a miserable remnant of one or two spikes, and supposed that either it was over or that it had not reappeared. Then came a week of deluging rain when nobody passed that way. On the first fine day, however, I took some quick-eyed friends down to see what had happened, and on a plateau some distance off—say, 10 yards or 12 yards—one of my friends exclaimed: "I never saw such quantities of Bee Orchis in all my life!" and there I found in quantities this creamy white and pink sepalled Ophrys, with the velvety bee-like lip, but red rather than brown in colour. Ophrys Arachnites, with its green sepals and petals and black-brown lip, was there also in plenty, but this was in groups of six or ten, enough to make patches of colour. In sixteen years I have never once seen it before, and yet this year it is abundant. It can hardly be a hybrid, as no Bee Orchis will be out for some weeks, and yet it seems too distinct to be a mere variety of Arachnites, which is much taller and more vigorous; so I hope someone may give me a clue. The handsome, though rather coarse-growing Orchis longibracteata has been less abundant than usual this season, but a few spikes have exceeded in size anything I have ever seen.

This, at least, I have found out: that if I wish its seed-capsules to be full and fertile, I must break off the flower-spike before it fades, and leave only six or seven pods to mature. In that way the seeds seem to gain in vitality, and a quantity of seedlings are sure to spring up another autumn, though not necessarily near the parent spike. No doubt the seed is scattered during the hay-making process in the month of May,



THE PEARL BUSH
(*EXOCHORDA GRANDIFLORA*).

which facilitates the dispersion of the chaff-like seeds.

Exochorda Albertii magnifica deserves a word of commendation, as it is freer flowering than the well-known *Exochorda grandiflora*, and, moreover, thrives in calcareous clay, which is deadly to *E. grandiflora*. The flower-spikes are both more abundant and longer in the raceme, so it is a very desirable shrub for this coast and elsewhere. It flowers at the same time as *Acacia verticillata* or *pinifolia*, which is a great contrast to it in every way and should be in every garden.

Viburnum Carlesii now fills the air with its powerful scent, rivalling the Incense Tree, *Pittosporum undulatum*, in its penetrating power, but more refined, perhaps because one has not so much of it! There are two types of it—one quite strong growing and rapidly making stiff, woody shoots crowned with pure white flowers. The second form is much less vigorous, but is

very free flowering, in this climate at least, and has the merit of having its flower-buds bright rose before they expand. For a day or two it is exceedingly pretty, but sadly fleeting. I find it does not like calcareous soil and needs leaf-mould to help it, but in soils free from much lime it grows easily enough. In England it needs exposure to the sun; here it needs shade and some water during the long, hot summer.

THE ETHICS OF ROSE PRUNING

(Concluded from page 171.)

In the thicker wall cells of the more hardy varieties of hybrid and specific Roses, certain cells may be discovered that have survived even in the most disintegrated tissues—after thawing is taking and has taken place. Such cells are capable at times of recovering themselves, owing to their power of reabsorption of the water in the intercellular spaces; and this is why such plants do not immediately perish when experiencing the evils of frost within themselves. Even in the more tender varieties they may survive for several weeks, even if, owing to their great lack of hardiness, death eventually takes place. With the more hardy Roses the tree may gradually resume vitality; but it is only gradually, and that cell by cell; and even then the wood is, unhappily too frequently, too much damaged to give a proper display of adequate bloom the succeeding season. This is why the old and frost-damaged shoots are the better for removal, allowing the new basals or the new laterals

to form in their stead. To the biologist, Ruzicha's test, which gives a red colouring with living protoplasm, is of interesting importance.

3. Therefore it is essential that the shoots should, by every means possible, be encouraged to ripen thoroughly and early, and to reach a high state of maturity before the frosts of winter arrive in real earnest. A milder frost of late autumn assists maturity in this. As regards outdoor Roses, thorough ripening is of much greater importance than artificial protection. The writer may be permitted to add, by way of parentheses, that, when he cultivated Roses on a cold and heavy clay soil, with such Roses as *Beauté Inconstante*, although he never went or goes in for protection, he has never lost a tender Tea Rose, and very seldom the tip of a shoot. How best to assist this ripening can be readily recognised by looking at the wild Dog Roses of our hedgerows. There, on the approach of winter, the long and sappy summer basals will be seen to be bending over more and more in an arc-like fashion. The consequence is that the amount of water in the sap is decreased, as the flow from the roots is restricted in quantity; and the shoots from the tips downwards fall over

and the basals cease to grow in length. To prove this, an experiment, easy in itself, can be tried. If, instead of allowing Nature to take her usual course, a basal is tied in an erect and vertical position to a tall Bamboo cane or other suitable support, the tip of this basal continues to grow, the fall remains longer thereon, and the shoot is by no means properly prepared to withstand the stress of severe and changeable windy weather. Even if the winter should prove to be a mild one and the basal escapes unscathed, the blossoms will be comparatively few in number and poor in quality.

In this lies the fact that we must allow the basals on our scandents to bend over and struggle about as in a state of Nature, and defer the actual tying up until they are thoroughly mature and ripened. Certainly it presents, for the time being, a somewhat bedraggled appearance to the look of our gardens; not the tidy one recognised by the worthy jobbing gardener, who would, if he did not tie these shoots up securely, remove them altogether. Naturally, the autumnal gales have to be considered. Other Roses in the close vicinity of the swaying branches may be damaged thereby. Therefore, when the winds are expected, tie in the lower portions of the basals, allowing the upper to bend over to restrain the flow of sap. When such, as seen by their physical condition, are fully mature and

thoroughly ripened, these self-same upper portions can then be finally securely trained in to stand the winter. Five points may now be mentioned, points which tend to lessen the amount of immature wood during the winter months.

1. Roses are *not* Cabbages, and therefore do not require the large amount of *nitrogenous* manures usually given, though repeated mild doses in spring and early summer are an advantage.

2. No manure should be given after July, especially the easily convertible forms of nitrogen.

3. Phosphates and magnesia, possibly with a fair percentage of lime under certain conditions, given in July and August will tend to assist the early maturity of the shoots.

4. *Perhaps* the early defoliation, partially performed, of the Teas and other more or less tender Roses may assist in the good work; that is, when, owing to a very mild late autumn and early winter, the Roses are still in an actively growing condition. This defoliation should be carried out by easy and gradual stages.

5. Allowing the basals to incline or droop over at their own sweet will.

The writer, by early attention to these few details, can obtain the most promising results. He may also be allowed to add that, although at times he indulges in a little earthing-up, yet he most conscientiously abstains from degrading the surface of the soil throughout the winter by mulching it with straw or other organic manure. It is essential for the friendly reader to remember that all ramblers, whether summer, autumn or perpetual, for an adequate display of rich blooms the following season, must have their wood in a sound and mature condition, for all pruning operations of these ramblers, whether of Multiflora or Wichuriana blood, means a corresponding loss of ill-spared bloom, and particularly so with the purely summer bloomers, when these same pruning operations have to be renewed the following spring,



THE FREE FLOWERING AND FRAGRANT FORM OF VIBURNUM CARLESII.

owing to the losses caused during the preceding winter. TORBAY.

THE WILD OLIVES

AMONG the shrubs commonly known as wild Olives or Oleasters, and botanically as *Elæagnus*, are several very beautiful varieties with evergreen foliage. They are excellent for growing as isolated bushes on lawns, where, especially during the winter months, their handsome foliage attracts much attention. Once planted they require very little in the way of culture, and though a good depth of well-worked loam is to their liking, they will grow very well in the poorest soil. Cuttings of half-ripened shoots, taken from the plants in late summer and planted in perfectly drained pots of sandy soil, root moderately freely, providing the pots are plunged to their rims in Cocoanut fibre refuse, and a few may be also rooted if planted in sandy soil in the open garden during the autumn months. One of the prettiest wild Olives is that known under the unwieldy name of *Elæagnus pungens Simonii* aureo-variegata, a name which should not, however, prevent its being planted. It forms a roughly pyramid-shaped shrub about 10 feet high, the centres of the leaves being a rich golden hue and the margins deep green. Grown on a lawn as at Kew, this is a most attractive shrub. *E. pungens aurea* is another partly golden-leaved variety of merit. *E. macrophylla* is the Fon Gumi of Japan, and has silvery evergreen foliage of an ornamental character. It usually grows about 8 feet high in this country. The above constitute the best of the wild Olives which are evergreen in character; but where space will allow it, the Silver Berry Tree of North America (*E. argentea*) should also be included. This loses its foliage in winter, but during the summer months it is covered with attractive silvery leaves.



THE SPIDER ORCHID (OPHRYS ARANIFERA) WITH GREEN SEPALS AND DARK BROWN LIP.

Tomatoes.—Sow seeds for succession under glass and a main batch for out of doors ; Sunrise and Holmes' Supreme for the latter purpose are desirable. More failures in outdoor Tomato plants are traceable to late sowing than to any other cause. Plants should not be less than 1 foot high, and should be sturdy, having been brought along under light conditions with abundance of air. Perfection is the best variety for indoor culture, where exhibition fruits are required ; but for a general crop, Sunrise is desirable. Plants now opening flowers should be daily fertilised, and, when a crop is assured, the plants will be all the better if given some stimulative food, either as a top-dressing or in liquid

form. Continue to remove all side or superfluous shoots, thus concentrating the whole energy of the plant into the swelling fruits.

Potatoes.—Proceed as fast as possible with the planting of all sections; generally the middle of April is a most suitable period. Give ample space to aid a free development of haulm and foliage. Insufficient space is false economy. Maturity is the main point to study, not only in obtaining a bulky crop, but in warding off disease also. In the case of sprouted sets, the latter should be limited to two growths.

Peas.—Sow fortnightly for succession such sorts as Duke of Albany, Quite Content or any other favourite sort. Do not overcrowd the rows or the plants. Some persons, with the aim of having all their Peas on one plot, sow the rows with only 4 feet of space between. This is a method not to be recommended, as the haulm grows weakly owing to want of light. It is far better to grow three rows of Potatoes between two rows of Peas, and, where possible, arrange for the rows to run north and south, so that equal light is assured to all sides.

Mint.—As the new growth shows through the soil, cover the whole with decayed leaf-mould or very short manure, which acts as a stimulant to the surface roots, enabling the plants to throw up large, succulent stems, which means a better type of leaf. Now is a good time to make a new plantation. Quite small pieces of the rhizomes, planted 2 inches deep in deeply dug soil and 6 inches apart, and given a top-dressing of leaves, will quickly give a full bed, especially if not cut severely the first year.

Cauliflowers wintered in frames should be put out into their permanent quarters, lifting each with a trowel with a view to retaining a ball of soil to the roots; this will not check their growth. If possible, protect the plants with some form of shelter from east winds for a time; green boughs answer well. The cold easterly winds often check the growth of the plants when first put out.

Swanmore.

E. MOLYNEUX.

DWARF BUTTER BEANS

I OFTEN wonder why Butter Beans are not more commonly grown; as rarely a season passes but what I hear of their appreciation by those who have tried them. When gathered and cooked whole they are very delicious, and the same applies to much older pods when cut up. It may be that the golden colour is not so pleasing to the eye of some people as if green, but they are none the less excellent, and make a nice change. I do not think the plants are so hardy and dependable in adverse weather as the many green-podded French Beans, but in the majority of seasons the yield is equally as heavy; at least, that is my experience with the variety Mont d'Or. Some years ago I grew the tall-growing Mont d'Or, a very good, prolific climbing variety, and was more than pleased with the quality, and when gathered quite small and cooked whole they were much appreciated; but as the dwarfs require no staking, I now grow only these for our requirements. A large quantity of pods can be grown with very little trouble and attention on plants occupying only a small space of land. I would advise those who may not have given them a trial (having depended entirely on the green-podded dwarf varieties) to do so.

Wrotham Park, Barnet.

H. MARKHAM.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Kitchen Garden.

Dwarf Beans.—These crop earlier than the climbing varieties, and, if space permits, a sowing may be made in pots under glass, ready for transferring to a sheltered spot next month. Osborn's Forcing or Canadian Wonder may be chosen.

Broccoli and Kale.—Seeds of these, with Savoy and all winter greens, should be sown at the first opportunity in lines 1 foot apart. Protection from birds will be necessary in most districts.

Salsify.—During the next fortnight both Salsify and Scorzonera can be sown. It is never advisable to sow this crop too early, or many of the plants will flower. Thin sowing must be the rule if good roots are desired.

Celery which has been raised in boxes must be pricked out in frames or boxes before the seedlings become weak and spindly. When they have recovered from the transplanting, every endeavour must be made to encourage sturdy growth by admitting air whenever possible, while the lights can be entirely removed when the weather is mild. Afford liberal supplies of water as root action increases.

Fruit Under Glass.

Vines.—Grapes that are showing signs of colouring require a free circulation of air, but a cold draught passing through the house must be avoided. Moisture should be reduced gradually as the berries approach maturity. The shoots on midseason Vines will need frequent attention in regard to stopping and training. Such work ought to be done on dull days or late in the afternoon. If the shoots are allowed to extend too long, there is always a possibility of them snapping, especially if tied down when the weather is bright. When the fruit has set, all surplus bunches must be removed, and the berries thinned before they become too crowded. The extent of the thinning will depend upon the vigour of the Vines, as the berries on strong, healthy rods will swell much larger than on those in a weaker state. Examine the borders, and, if needed, give a good application of diluted liquid manure and a dressing of Thomson's Vine Manure.

The Flower Garden.

Evergreens.—Such trees as Hollies, Box, Yew and various conifers may be transplanted if necessary. There are few failures when such work is done just as new growth begins.

The Rock Garden.—At present there are many plants in bloom, and constant attention will be needed to keep the rock garden clear of weeds. During late summer and early autumn, flowers are rather scarce, so it is advisable to sow a few annuals where there is sufficient space. Phlox Drummondii is excellent for this purpose, and a quantity should be pricked off in boxes in readiness.

Plants Under Glass.

Begonias.—The tubers that were started early will be ready for potting on, but, until a moderate growth is made, the flower-buds should be removed. The later batch started in boxes may also be potted off. A warm, buoyant atmosphere must be maintained to encourage healthy growth. Gloxinias may be treated likewise, but they should be placed in their flowering pots at the first potting.

Chrysanthemums.—If large blooms are desired, the plants should be placed in 6-inch pots, using a mixture of three parts loam and one part leaf-mould, with a moderate sprinkling of manure from an old Mushroom-bed. Pot firmly and put the plants in a cold frame. Careful watering must be practised, and both green and black fly destroyed.

The Hardy Fruit Garden.

Pests.—A sharp look-out must be kept for Apple sucker and aphid, and immediately they are detected the sprayer must be got to work, or the young growth will soon be crippled. Red spider and thrips are sometimes troublesome, and the Gooseberry caterpillar must be searched for and destroyed. There are several good insecticides available which will keep the trees clean if used according to instructions.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Onions.—Those sown in heat early in the year should now be ready for planting out, although if the weather is unsuitable they may be safely left in the boxes for another fortnight, but the sooner they are planted now the better. Lift the plants carefully with a hand fork to preserve as many of the roots as possible, and do not expose them to bright sunshine or drying winds. The ground should be made moderately firm, and a perpendicular niche cut out with the spade deep enough to allow the roots to hang straight down; firm nicely up and smooth the surface with the rake, and proceed with the next line. From 15 inches to 18 inches between the lines and 6 inches to 9 inches from plant to plant should be sufficient to grow fairly large bulbs. If the weather should prove dry directly after the planting is finished, sprinkle the plants with rain-water daily until they are quite established; but if they can do without watering, it is better not to commence.

The Hardy Fruit Garden.

Disbudding Wall Trees will now call for some attention. A commencement should be made as soon as the shoots are large enough to handle, continuing the process at intervals until only the requisite number of shoots for the correct maintenance of a well-balanced tree is left. Remove all outgrowing shoots and those growing towards the wall, and endeavour to retain one or two well-placed shoots at the base of each branch. Avoid severe thinning at one time; it is safer to go over the trees at intervals until the work is completed. Peaches and Apricots are the first to need attention, and as the fruits will now be set, it will be quite safe to remove a portion of these by way of thinning.

Black Currants.—Where big-bud is troublesome and not severe enough to warrant the destruction of the plantation, hand picking may be sufficient in small establishments to keep it in check. The bushes may also be sprayed with the lime and sulphur wash.

Gooseberries.—Another application of lime and sulphur should be given these before they come into flower, to further check American Gooseberry mildew. Like most other garden pests, this can be attacked with better prospects of success at this season than when in the dormant stage.

Raspberries.—Remove all suckers produced at a distance from the stools, unless young canes are required for a fresh plantation; and these should be at some little distance from the stools, so that the roots of the fruiting canes will not be unduly disturbed when removing the young plants. Raspberries remain a very long time in a fruitful condition in some gardens without requiring renewal, but these should be well attended to in the way of top-dressing and doses of liquid manure. Moss litter manure from the stable yard makes an excellent top-dressing for these as well as other bush fruits where annual digging is not practised.

Plants Under Glass.

Azaleas.—As these pass out of flower all the seed-vessels should be removed, the plants laid on their sides, and given a thorough wash with the syringe and some insecticide. The plants should now be encouraged to make strong growths by giving frequent doses of liquid manure and syringing the plants daily. Repotting may also be done at this season where necessary, using a fair quantity of good peat in the mixture.

Amaryllis.—When the plants have finished flowering they should be given some stimulant to finish their growth, after which they may be gradually brought to a resting condition.

Lilium Harrisii.—The flowers of this beautiful Lily are always in demand, and the earliest batch of plants should now be encouraged to grow freely in heat until the buds are almost opening, when they should be removed to the greenhouse. Weak liquid manure ought to be given when the pots are well filled with roots.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

ANSWERS TO CORRESPONDENTS

FLOWER GARDEN.

LILY WITH BROKEN STEM (*T. P. N.*).—It is not possible to recognise the species of Lily described as "Apricot." It may be *L. monadelphum*, *L. testaceum*, *L. Batemannia*, or one of the many varieties of *umbellatum*. In any case, the destruction of the new stem will almost certainly prove fatal to any blossom next summer.

FERTILISERS FOR ROSES (*La Poya*).—We have had no experience of "Biogine." If it contains a good percentage of phosphates, potash and ammonia, it should be good for your Roses. It is an excellent plan to top-dress or mulch with Wakeley's Hop Manure after pruning. This manure is rich in potash and phosphates. You will find a dressing of 1lb. to the square yard ample. We find bone-flour excellent to aid the bloom, as also is Peruvian Guano or sulphate of ammonia. If you gave a little of either of these to Rose Lady Waterlow when the buds are seen, you will help them considerably; but if applied now to such a vigorous grower, you would encourage growth at the expense of bloom. You might with advantage give the trees at once a good shovelful or two of cow-manure. Clear the soil away a little, lay manure around, then cover the latter with the soil. The rains take down the nourishment in small and helpful quantities.

THE GREENHOUSE.

CHRYSANTHEMUM: YELLOW SPORT (*R. B.*).—We think the variety a very good one and well worth general cultivation. The petals are firm and possess plenty of substance; the colour also is rich. Some very late varieties do not develop full blooms from buds formed as late as yours were; this is another point in its favour. The sport is evidently well fixed, and as the plant has a dwarf habit—under 3 feet in height—it will be useful for amateurs who have small greenhouses, as well as market growers. We are pleased to learn that you find *THE GARDEN* so helpful.

AGATHÆA CÆLESTIS NOT FLOWERING PROPERLY (*C. J.*).—There was nothing in the specimens sent to account for your plants failing to properly develop their blossoms. The shoots were perfectly healthy. We think that the trouble is caused by the wintry change in the weather, and probably the pots are full of roots and would be benefited by an occasional stimulant. Given this, and with the improvement in the weather such as one may reasonably expect at this season, we do not think that you will have any further cause to complain of the behaviour of your plants.

BEGONIA TUBERS DISEASED (*W. H. E.*).—You tell us nothing as to the treatment the Begonias have received or the conditions under which they have been kept, hence we are greatly handicapped in answering your question. One of the tubers sent is attacked by dry rot, which would suggest that it has been parched up; while in the other the decay has spread over the greater part of the tuber, but a small portion is still firm. Appearances suggest that they were badly ripened off, and kept too dry since. It must be borne in mind that Begonia tubers need only to be kept quite safe from frost, say, in a minimum temperature of 45°. If your Begonias were grown out of doors, there is another possible reason for the trouble, namely, they may have been caught by frost before lifting, as the injury seems to have commenced in the centre of the tuber, that is, at the base of the old flower-stem. They may have been wintered near the hot-water pipes, a very unsuitable position for them.

TREATMENT OF CANNAS (*A. M. K.*).—The rhizomes of Cannas should on no account be dried off now, as the root action will be resuming its normal activity. They should be at once potted in some good soil, placed in a greenhouse, and watered sparingly at first, then, as growth develops, an increased quantity must be given. The plants will then grow away sturdily and form effective specimens by bedding-out time. You mention nothing of the convenience you have for keeping the plants until that period comes round, but we presume that you have a greenhouse. We are frequently handicapped in answering questions by the lack of information furnished by the querists on matters like this, which we have, of course, no means of knowing. It will certainly not be safe to plant them in the open during April, as, apart from probable frosts, the ground would be so cold that most of the rhizomes would in all likelihood perish. The middle of May is quite early enough to plant out Cannas. If you have no greenhouse, there may be a frame available, in which case it must be covered in the event of frost. Failing this, perhaps you have favourable space in a window, where the plants may be grown till it is safe to venture them out of doors.

FRUIT GARDEN.

CATERPILLARS ON LOGANBERRIES (*Pergola*).—We do not know what they would be. Arsenate of soda is the only thing that will kill such biting insects.

SPRAYING APPLE TREES WITH PARAFFIN EMULSION (*C. T. A.*).—It is now too late to apply paraffin emulsion as a winter dressing for the destruction of pests on Apple trees. If you will let us know the nature of the pests you wish to have destroyed, we may be able to help you to do so with another mixture which will do no harm to young growth.

BIRDS AND FRUIT TREES (*Ortolan*).—You would probably be able to procure bird-lime from a manufacturing chemist such as Messrs. Voss of Milwall, but, in using it, would you not be likely to capture and injure birds of all sorts, good as well as bad—the bad are few, the useful many. Have you tried paraffin emulsion and lime wash or lime-sulphur spray? The position of your trees suggests that black thread might be run over the trees in places, and this would probably help to scare the birds.

PLANTING A VINEYARD (*Bourbon*).—You would be able to get hardy Grape Vines from Messrs. G. Bunyard and Co., Maidstone, who make a speciality of hardy varieties of Grapes. The following varieties are all of proved merit in Britain, viz., Gamay Noir, Brant, Black Cluster, Reine Olga and Chasselas Rose. The first two named were especially esteemed at Addington, Wisley, and also at the Marquis of Bute's vineyard in Wales.

AN OLD STANDARD PEACH TREE (*W. F. W., Warwick*).—The best stock for the Peach is the Plum. Budding, rather than grafting, is the usual method of propagation. Budding should be done from the middle to the end of July, when the sap is running freely. Any fruit tree nurseryman would supply you with young stock. It is now rather late for planting this year. In ordering, you had better ask the question if it is so or not. Any responsible nurseryman would, at little cost, bud you as many as you might require by your sending him a few cuttings at the right time, if you desired. It is unusual for the Peach to bear satisfactory crops in the open ground, and especially on cold clay soil. We would appreciate a short note relative to the growth and bearing of your old tree.

RHUBARB THE FIRST YEAR AFTER PLANTING (*Egdon*).—You should not have covered your Rhubarb roots with manure and boxes, thus forcing it into growth early the first year after planting. It will weaken and throw back the usefulness of the roots. You should have left them alone and allowed them to grow naturally. The following year they would have been ready for moderate forcing and would have given you a fine return. The best thing you can do now is to allow the Rhubarb to grow slowly, taking the boxes off in the daytime and putting them on in case of frost at night, until the leaves are quite hardened, when they will need no protection. It will be better for the roots and crowns of the Rhubarb if you refrain from pulling any sticks this year; you will reap the advantage in next year's crop.

MISCELLANEOUS.

LEAF-CUTTING BEE (*M. L. M.*).—The curious cells you send are those of a leaf-cutting bee. This bee uses the leaves of Roses and other trees, cutting out circular pieces wherewith to construct cells in which it lays its eggs, together with the food upon which the young will feed. They are often found in rotting wood, but we have never before heard of them in a flower-pot.

BOOK ON TUBEROUS BEGONIAS (*W. C., Kent*).—We are sorry that we do not know of any recent book giving the history of the Tuberous Begonia. The best work on the subject that we are acquainted with is "The Tuberous Begonia: Its History and Cultivation," by Brian Wynne, published by the *Gardening World* in 1888. It is now out of print, but you might be able to obtain a copy through a secondhand bookseller.

PATENT MANURE FOR VEGETABLE CROPS (*C. McD.*).—The ingredients of which you say your patent manure is composed are excellent substitutes for ordinary manure. But there is no manure so effective in its results in the growth of vegetables as good farm or stable yard manure. Mix the ingredients well together (possibly they have been mixed—you do not give the proportions), spread the manure over the ground before sowing or planting your crops (on a dry day), and fork it into the surface of the soil 6 inches deep, well mixing it with the soil, applying it at the rate of three quarts to the rod or perch. Apply it also as a top-dressing to Potatoes and other crops before earthing them up, spread it lightly over the surface of the soil above the roots of the plants with the hand, and hoe it into the ground before earthing-up takes place.

ABOUT A PROPAGATOR (*H.*).—It is not possible to give you definite information regarding your propagator, as we do not know what it is like. As a rule, the makers supply all necessary information. It is usually advisable to insert cuttings in a proper mixture, although many can be rooted in sand. The temperature must depend largely upon the kind of cuttings inserted. In the case of most propagating-frames the lights are kept closed, except for half an hour or so each day, when the glass is wiped and the atmosphere allowed to dry a little. Occasionally, however, a little ventilation may be left on a frame permanently. All these particulars can only be learnt by experience. We presume that your propagator will be kept in a greenhouse.

BLACK FUNGUS ON FLOWERS OF CHIONODOXA (*W. F. M. C.*).—The flowers of *Chionodoxa* are discoloured because the anthers are filled with the dark brown spores of the fungus *Uromyces Vaillantiae*. This fungus lives in the bulbs, or rather in the base of the corms, through the summer and grows up the stem as the inflorescence develops, forming its spores only in the anthers. It is perennial in the plant, so that, once attacked, the plant (and probably any offsets formed) is always attacked. The fungus is not likely to spread to other plants, but seedlings produced in its neighbourhood are likely to be affected. Some of the *Scillas*, e.g., *S. bifolia*, may also fall victims. It was first introduced to this country

from Asia Minor by a well-known bulb exporter, who mistook the diseased plants for a new variety and sent them over to be tried!

NAMES OF PLANTS.—*H. M. T., Dawlish*.—*Pitiosporum tenuifolium*.—*Arbor*.—*Cupressus macrocarpa*.—*H. O., Kirkcaldy*.—*Anemone Hepatica* (*Hepatica triloba*).

SOCIETIES

BOURNEMOUTH SPRING SHOW.

THE ninth exhibition of spring flowers was held in the spacious pavilion of the Winter Gardens on April 4 and 5, and was a success in every way. The weather was fine; the exhibits, staged both by private and trade growers, and the attendance of the public were very satisfactory. Among the groups of miscellaneous stove and greenhouse plants, those arranged by Messrs. G. Watts and Sons and The Park Nurseries, Bournemouth, were exceptionally fine. Messrs. Stuart Low and Co., Bush Hill Park, Middlesex, had an effective display of Perpetual-flowering Carnations; Messrs. R. Veitch, Exeter, one of flowering shrubs and Carnations; Mr. Maurice Prichard, Christchurch, a charming table of rock and alpine plants in pots; Mr. Reginald Prichard, West Moors, Wimborne, a fine representative collection of rock and alpine plants, naturally arranged in rocks and moss; Messrs. W. H. Rogers, Limited, Southampton, staged Heaths, Azaleas and alpinas; and Mr. T. K. Ingram, Parkstone, Dorset, Tulips and a group of miscellaneous plants.

COMPETITIVE CLASSES.

In the class for a group of miscellaneous plants and bulbs in pots, Mr. G. H. Heath, gardener to G. G. Russell, Esq., Glenfalloch, Bournemouth, was the winner; he had fine Primulas, Tulips, Narcissi, Spiræas and Lily of the Valley in his group. Mr. W. Weaver, gardener to Major Tinker, Chewton Glen, Christchurch, was second; *Schizanthus wisetonensis*, *Cyclamen* and *Hippeastrums* were the principal plants used. Mr. Weaver had the best six pots of *Cineraria stellata*. Mr. P. Galpin, gardener to Mrs. C. Telfer, Bournemouth, had the best three pots of *Mignonette*.

In the class for plants, flowering or otherwise, Mr. Weaver was first, second honours going to Mr. Galpin, and third to Mr. Heath. Mr. Galpin had the best three plants of *Genistas*, well-flowered specimens; and Mr. Weaver scored in the class for three plants of *Schizanthus wisetonensis*, Mr. Heath second. The prizes for one specimen greenhouse flowering plant went to Messrs. Weaver, Galpin and Heath in the order named. The classes for cut flowers of Narcissi and Tulips were well filled with good produce. Miss A. M. Wilson, Bournemouth, was the winner in the class for a dinner-table decoration, closely followed by Mr. G. Barge.

NON-COMPETITIVE EXHIBITS.

Gold Medals.—Mr. Maurice Prichard for rock and alpine plants; Messrs. Stuart Low and Co. for Perpetual-flowering Carnations and Orchids; Mr. Reginald Prichard for rock and alpine plants; Messrs. R. Veitch for flowering shrubs and Perpetual-flowering Carnations; Messrs. G. Watts and Sons, Limited, for miscellaneous greenhouse plants and Tulips; The Park Nurseries (Mr. F. M. Welch, manager) for miscellaneous greenhouse plants.

Silver Medals.—Messrs. W. H. Rogers, Limited, for Heaths, Azaleas and alpine plants; Mr. T. K. Ingram for Tulips and miscellaneous greenhouse plants; Mr. Pursglove for bulbs and greenhouse plants.

Bronze Medal.—Mr. H. M. Elford for Perpetual-flowering Carnations.

HIGHCLIFFE GARDENERS' ASSOCIATION.

THE assistant secretary of the Bournemouth Gardeners' Mutual Improvement Association, Mr. C. Nippard of Ashton Court Gardens, gave a very instructive lecture before the members of the above society on April 3. The subject was "Pot Plants and Some Causes of Failure." Only a few points in his exhaustive lecture can be referred to. Mr. Nippard said it was very essential to success to have plenty of light, ventilation, cleanliness, suitable potting composts, and to avoid overcrowding. It was customary in days long past for gardeners to cut and stack turves with layers of manure and other ingredients between them, and then to cut down the whole, as required, and use it for nearly every kind of plant. Now, we stacked the turves alone and added suitable ingredients when mixing composts for the different kinds of plants. All successful cultivators should be good propagators in these days, so as to keep up a regular supply of plants for decorative purposes. With regard to *Azalea indica*, he recommended the retention of the plants under glass till the new growths were perfected and the buds formed, then placing the plants in the open air, fully exposing them to the sun, but plunging or otherwise screening the pots from the sun's rays. He said *Cinerarias* were usually grown in too rich a compost; seedlings raised in the open air were the hardest. *Celosias* and *Cyclamen* should be grown in a fair amount of heat during the early stages. The first week in April was a good time to sow seeds of *Celosias*, and the latter part of July and early in August for sowing *Cyclamen* seeds. Many other kinds of plants were dealt with, and a free discussion then took place, Mr. Nippard ably replying to many questions. Both the lecturer and Mr. W. Marjoram, the chairman, were heartily thanked at the close of the meeting.

THE GARDEN.

No. 2318.—Vol. LXXX.

APRIL 22, 1916.

NOTES OF THE WEEK

*** A Patriotic Flower-Bed.**—Nine persons out of ten if they set themselves the task of making a spring red, white and blue flower-bed would, in all probability, produce a very unhappy result. It is not an easy matter to find flowers even of these primary colours that bloom at the same time and give a *natural* effect when grown together. On a rocky bank in a garden near Weybridge we lately saw an uncommonly beautiful association of these three colours, comprising the glowing scarlet of *Anemone fulgens* rising from ground patches of the pure white single *Arabis* (not the double, which is later to flower and not such a pure white), and the bright blue spikes of *Muscari Heavenly Blue*. This is a delightful association of rock plants, in no way stiff or formal, and all flower together with charming effect.

Garden Allotments in Scotland.

There are signs of increased activity among allotment holders in all parts of the country, and rightly so, for it is the duty of every citizen to grow as many vegetables as possible. Apart from patriotic motives the increased cost of food necessitates a more extensive cultivation of the land. The efforts to secure increased food production in Scotland are giving a great impetus to the allotment movement there, and gardens are being provided in many places. The 200 allotment gardens at Tollcross Park, Glasgow, provided by the Corporation, have all been taken up. Paisley Town Council is meeting a good demand for such gardens by providing them at Barnshaw Park. Clydebank has formed an association for garden allotments and has secured some land. Portobello has had a preliminary meeting in connection with the same movement, and has agreed to proceed forthwith. Maxwelltown has given its borough workmen gardens at the sewage purification works, with liberty to use manure from the works.

Scottish Reformatory Bulb Exhibition.—The other day Mr. Spielman of the Home Office opened a show of bulbs grown by the young people of Scottish reformatories, the first of its kind in Scotland. It was a successful beginning, and the flowers were mostly well grown. The first prizes for Hyacinths and Narcissi went to the Stranraer Reformatory for Boys, an institution

which makes a speciality of horticulture. Those for Tulips went to the Dalry School for Girls at Loanhead. Although the competition was comparatively limited, the prospects for a larger show next year are most promising. Mr. J. W. M'Hattie of the Edinburgh Parks acted as judge.

Polygonum vaccinifolium.—Few *Polygonums* are suitable for the rock garden, and perhaps, excepting the one noted above, they are of no great value. *P. vaccinifolium* produces spikes of bright rose-coloured flowers in great

Rose Hon. Mrs. R. C. Grosvenor.—Messrs. B. R. Cant and Sons, Colchester, send blooms of this new Hybrid Tea Rose, which is being sent out this spring. The blooms are fragrant, the outer petals being porcelain flesh toned off to orange yellow, flushed with rose in the centre. The blooms, which open well, are of fair size and substance, carried on long, stout stems, and accompanied by a healthy look about the foliage which is so much admired by all keen rosarians. When full blown the blooms are of a beautiful suffused colour reminiscent of Gloire de Dijon. It is said to be good in the autumn, and this being so, it will undoubtedly prove a favourite variety for bedding and massing.

Glass-houses: Old and New.

When Sir Hugh Plat wrote in his "Garden of Eden" (edition of 1659, page 51) that "Master Jacob of the Glasse-house had Carnations all the winter," he meant one thing. When we nowadays tell a friend that So-and-so has "a jolly fine glass-house," we mean something quite different. The old knight's "Glasse-house" was a glass manufactory; whereas ours is a greenhouse. It is one of the many instances, like "prevent" in the Church of England Prayer Book, of a word which, with the passing of time, has changed its meaning. According to the Oxford Dictionary, the word was not used in its new and now usual sense until 1838. It is a curious coincidence that what may be called one of the beginnings of the modern greenhouse, with its system of artificial heating, was the warming of a room at the back of a fire in a glass manufactory: and that the very name glass-house was destined to have with the extended manufacture, improvement, and cheapening of glass, an entirely new meaning, but one, as luck would have it, so strangely in sympathy with

the past. "Glass-house" is something of a pitfall when we come across it in old books of gardening and travel (e.g., Hentzner, "A Journey into England in 1598"), unless we remember that it was originally used to describe a glass manufactory.

* * * Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.



THE NEW GARDEN ROSE HON. MRS. R. C. GROSVENOR
RECOMMENDED FOR BEDDING AND MASSING.

profusion, especially in the autumn, when they are doubly welcome on account of the scarcity of showy patches in the rock garden. It is an excellent subject for covering large stones or rocks, owing to its neat trailing habit and rapid growth. It will thrive in almost any soil or position, but the best results are obtained when the soil is fairly good and the position not shaded in any way. Propagation is effected by division in the spring.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Michauxia campanuloides.—Two years ago I saw flowering in an Oxfordshire garden near here the most beautiful group of *Michauxia campanuloides*, a variety which, to judge from Miss Willmott's *M. Tchihatcheffii*, is *far* the more lovely of the two. I was, however, promptly discouraged from trying to grow it by a nursery gardener to whom I applied for plants, as he said it was "disappointing and *only a biennial*" (sic). Evidently it, however, and Miss Willmott's *M. Tchihatcheffii* are alike in being "difficult," and I see no mention of the latter in Robinson's "English Flower Garden" (fourth edition), perhaps for this reason; but I wonder the lovely *M. campanuloides* is not more often tried.—A. L. A. T.

Pulmonaria angustifolia.—Flowers of the end of March and earliest days of April are none too many, and still less frequent are flowers of a pure and intense blue. Yet the Narrow-leaved Lungwort, or Blue Cowslip as it is sometimes called, which has both these merits—and, though a rare native, is a thoroughly good garden plant—is not often seen in cultivation. It is delightful to group with *Scillas* and *Chionodoxas*, others of the pure blues of the season. Unlike its near relative *P. officinalis*, which seems only to do well on chalk, it flourishes in any soil, even the poorest.—G. J.

Epilobium hirsuta variegata.—Those fond of variegated border plants might well secure this very old variety. It is an attractive plant, stately and erect. It is what the early writers on horticulture would term an "abiding" plant, for if introduced into the border it soon claims much space for its abode. *E. hirsuta* is a common British plant, but I have not seen the *variegata* form wild. It is not rare on the marshes of Holland, however.—T. HAY.

Perpetual-Flowering Carnations.—In the issue of April 8, page 166, your correspondent "North Middlesex" suggests that no one will succeed in winter who tries to grow these within fifteen miles of Charing Cross. I am prepared, if necessary, to produce many witnesses to prove that reasonable success is obtained at this address, reckoned to be thirteen miles from Hyde Park Corner. I admit some extravagance. Every spring a fresh stock of young plants, once broken, is purchased from Mr. Burnett, Mr. Allwood or other first-class grower, and this stock, carefully watched and potted on in the summer, invariably produces an unfailing crop of flowers in November, December and January. From 100 to 150 plants are grown at this address, and during the months in question the average yield is, I am sure, over twenty good blooms per week. If the above method is adopted, I am satisfied, after some years' experience, that there is no difficulty. But—and "there's the rub," especially in these hard times—I very much doubt whether strong,

early cuttings for propagation can be relied on so near Town. On this point, my experience is practically nil.—CHARLES MARTINEAU, *Littleworth, Esher.*

Narcissus cyclamineus, DC.—With reference to the Rev. J. Jacob's article in *THE GARDEN* for April 8, pages 169 and 170, it must be admitted that Dean Herbert blundered badly when he cited Olaf Rudbeck as the author of "Theatrum Floræ." This book was published in Paris in 1622 (De Candolle, Pritzel) or 1628 (Dryander), and the re-issue in 1633. I can only suggest this as a possible explanation: Herbert had been citing Rudbeck's "Campi Elysii" twice on page 305 of his "Amaryllidaceæ,"

pheasant was seen busily clearing up what few bulbs remained. Can it be that patriotic pheasants now refuse to eat Mangel-Wurzel? Have any of your readers had a like experience?—E. A. B., *Maidstone.*

Pretty Effects in the Garden.—In reply to your interesting article on pretty effects in the garden, I have specially noted the following as an edging to the herbaceous border: *Crocus vernus aureus* coming up through the common Pink, the silvery foliage of the latter enhancing the yellow of the *Crocus*. A happy accident in planting on the rock garden created a pretty effect in several clumps of *Hyacinthus azureus* being recently planted over some yellow *Crocus*. The twain being in flower together, the exquisite blue of the *Hyacinthus* shows more cerulean than ever against the golden yellow of the *Crocus*. Again, I noted a small bed of the common blue *Hepatica angulosa* planted about 6 inches apart, and the spaces between filled with clumps of *Galanthus Elwesii*. The effect of the white bells hanging slightly above the *Hepatica* was charming, and lasted in effect for some time. It is obvious that the above early spring effects can only be obtained by planting in sheltered nooks and beds.—W. D., *Bexhill.*

Shakespeare and Contemporaries.

"It is not known if Shakespeare was acquainted with Turner and Gerard; but as they were contemporaries, it is more than probable they may have met." Thus Miss Willmott in your issue of March 25. Turner died in 1568 when Shakespeare was four years old. The Dean must therefore be left out of this interesting speculation. But I have always cherished the idea that Gerard and the poet did meet. Dr. Wallace discovered Shakespeare's close acquaintance about 1598-1604 with the Mountjoy family, dwelling at the corner of Monkwell and Silver Streets, with whom he may even have lodged for a while. In Monkwell Street stood the hall of the Worshipful Company of Barber-Surgeons. Gerard joined the court of this company in 1595, becoming Master in 1607, and coming from his house in Holborn his way lay past the Mountjoys' door. Another suggestion. In 1599 Gerard dedicated to Sir Walter Raleigh the second edition of the catalogue of his famous garden in Holborn. Whether Raleigh was or was not about the year 1604 *the* or *a* founder of the

society which met at the Mermaid Tavern in Bread Street, it is pretty certain that many distinguished men of his acquaintance in various walks of life (he would appear to have known everybody worth knowing) visited the Mermaid. Why not Gerard? Elizabethan London was a very little great place, and it must have been difficult for prominent men not to have met. Please excuse the digression. It may be of some interest as we are about to celebrate the tercentenary of Shakespeare's death.—O. S.

Muehlenbeckia complexa and Lenten Roses.

I read with interest the remarks made in *THE GARDEN*, issue March 11. A small slip I gave of this New Zealand plant many years ago is now



MICHAUXIA CAMPANULOIDES. A LITTLE KNOWN BIENNIAL THAT IS DIFFICULT TO GROW.

and then, proceeding on the same page to discuss *N. cyclamineus*, he, by some curious slip of the pen, wrote "Rudb." in front of his reference to the "Theatrum Floræ," whose author is still unknown.—B. DAYDON JACKSON, *General Secretary, Linnean Society.*

Pheasants and Tulips.—Though unwilling to contravene in any way the party truce, I should like to call your readers' attention to the following circumstance. A bed of Tulips planted in a remote spot was found to be attacked; the bulbs had been dug around and apparently eaten on the spot, and the remains were left, each in a small, round hole. I concluded at once that rats had been at work, until a few days ago a hen

above 12 feet high, ramping over wire netting, forming quite a wall to a tennis ground, on a hill facing east, looking seawards across to Exmouth. My Lenten Roses have been very fine in a sloping border facing north, under Apple trees, with Daffodils, Primroses, small early dwarf Rhododendrons, spring Magnolia, Ferns and Flag Irises. I find the Lenten Roses last longer when picked with short stems, which should be split up and placed in some moss in a soup plate, or, better still, a green Wedgwood dessert dish, with plenty of water. The tall stems in a glass droop so much that the beautiful centres are never seen.—SOUTH DEVON.

Rhododendron præcox.—This charming hybrid Rhododendron, the subject of many notes in THE GARDEN, furnishes a good illustration of the fact that a most desirable subject may be grown for some years before its merits are fully recognised. It was raised by the late Mr. Isaac Davis of Ormskirk, the parents being *R. ciliatum* and *R. dauricum*. Shown by the raiser at a meeting of the Royal Horticultural Society on March 12, 1861, it was only commended. Strange to say, at the same meeting a first-class certificate was awarded to the variegated-leaved form of *Agathæa cœlestis*, a plant of no merit whatever. Variegated-leaved subjects were, however, about that time, and for some years after, exceedingly popular. This is shown by the fact that at the International Horticultural Exhibition of 1866, in Class 25 a substantial prize was offered for fifty hardy variegated alpine and herbaceous plants, distinct. Such a class would not find much favour to-day.—H. P.

"Wedding-Cake Flower."—Those who grow *Arabis alpina* in the conventional manner will fail to see the appropriateness of the common name given it by cottagers in the West of England. To appreciate "Wedding-cake Flower" the plant must be grown in some such circular receptacle as a vase, tree stump, or even a drain-pipe stood on end, and then, when the growths encircling it are smothered with white flowers, the likeness to an iced cake is at once seen. Time was when it was the fashion to ban white flowers in the garden in quantity on the grounds that white was "cold and insipid," but to me white flowers in the spring have a deal of charm, and every year at this season I renew with much pleasure my acquaintance with a generous bed of the common *Arabis* in a friend's garden. It is one of those "lucky accidents" which, if only we were sufficiently honest to admit them, play such a big part in the success of gardening. In the first place, the *Arabis* was planted as an edging to a semi-circular bed at the end of an Ivy-clad shed wall on the way to the kitchen garden, and as the position was of no particular importance in the garden scheme, the *Arabis* was permitted to spread until it has now long filled the whole of the bed and makes a charming effect. Towards the end of the season two or three stray *Honesty* plants which generally spring up among the *Arabis* begin to flower, and the association of deep lilac and white flowers gives an added value.—CECIL ARTLETT.

Exhibition Vegetables v. Utility.—I am glad to see such an exponent of vegetable culture as Mr. E. Beckett replying to my previous enquiries. I did not attack any method of production, but simply asked for guidance in the future as a means of arranging schedules with a view to combining what is known as utility with an exhibition standard, and also with a view to guiding exhibitors and judges alike. I do not think I am wrong

in saying that judges would be much perplexed in dealing with collections of vegetables such as shown on the occasion alluded to last September as staged in the respective classes by Messrs. Beckett, Ellwood and Janes, if they were all entered in one class for nine dishes of vegetables without any definition of their requirements. For this purpose I penned my note of enquiry. I agree with Mr. Beckett that it is much easier for an exhibitor who cultivates his vegetables in a superior manner to arrange collections of both types than the ordinary person who cultivates all in a similar manner, and that of quite an ordinary character. It is with this view I asked for information, not expressing my personal opinion upon either of the methods noted.—OBSERVER.

Hardy Palms in the Open.—*Chamærops Fortunei* is not considered a hardy plant, except on our Southern coasts and other favoured positions in the British Isles; but here in Dulwich it has proved itself as able to withstand the



CHAMÆROPS FORTUNEI GROWN WITHOUT PROTECTION FOR OVER TWENTY YEARS IN THE GARDENS AT WOOD HALL, DULWICH.

severest frosts, plants having been growing in the same position without any protection for over twenty years. The accompanying photograph was taken during an interval in the stormy weather experienced during March, and although a few days previous the plants had been buried in snow, with their leaves bent to the ground, they did not show the slightest trace of injury; indeed, the common Laurels and Aucubas looked more distressed than did the Palms. Strong winds are more detrimental to their welfare than are the frosts, and a position sheltered from the former should be found for them. Here they add a tropical touch to the garden equal to any of the tender plants generally used for that purpose.—R. B. LEECH.

FORTHCOMING EVENTS.

April 26.—Royal Horticultural Society of Ireland Show (two days).

April 27.—Midland Daffodil Society's Show at Birmingham (two days).

RASPBERRY AND BLACKBERRY HYBRIDS

SOME time ago I thought I would like to grow "Berries" in my garden, some of those long, prickly stemmed gentlemen that you sometimes see advertised in nurserymen's catalogues, so I made a start, but I had no idea what I was going in for, nor the length of the list that it entailed, if I were to have a representative collection. The following is a list which is probably very imperfect:

Loganberry, Phenomenal Berry, Newberry, Lowberry, Laxton Berry, King's Acre Berry, The Mahdi, Japanese Wineberry and Strawberry-Raspberry, these two latter being species.

Then there are a lot of American hybrids of Blackberries with Raspberries, also the Hailsham-berry, which is really a Raspberry, and, in addition, numbers of interesting and new up-to-date

Raspberries. Finally there are the Blackberries, of which the following, I think, are the best known: *Rubus lanceolata*, or Parsley-leaved Blackberry, Wilson Junior, Newman's Thornless and many others, including a most interesting new one called Himalayan Giant.

THE LOGANBERRY.

Everyone who is fond of fresh or stewed fruit ought to grow the Loganberry. Four years ago I planted one under a very tall old Apple tree, with branches only high up; last year it gave me about 6lb. of fruit, worth at least 6d. a pound. On rare occasions I gave it a little water, and sometimes, what one might call in polite language, "clear soup," which also produced a marvellous increase of fruit from the old Apple tree. The Loganberry may be grown against a wall or hedge; any aspect will suit it, but, of course, good sunshine is the best for most fruits. On hot sandy or dry ground it is advisable to dig in some turf; four good spadefuls should be put under each

THE SINGLE WHITE AYRSHIRE ROSE (*ROSA ARVENSIS*).

plant. Should anyone wish to grow a row, the new shoots of the plants should be bent down and the tips planted in the soil slantwise. This should be done in September. In November they will be found to be well rooted, when they can be cut off about 18 inches from the ground and planted in a row. If the cane is still very long, the tip can be again inserted in the ground, as in September, and by the beginning of April there will be another rooted plant ready to cut off, when the rest of the cane may be tied up in its proper position for fruiting.

In this way enough plants can be procured to make a long row, or even to give some to friends. To make a support for a row, use old gas pipes, 8 feet long, and some galvanised wire, and a permanent support can be easily put up in a few minutes.

At the end of August, when the fruit is over, all the old fruiting canes must be cut out, and all the side shoots may be cut back to about four eyes from the main stem. Some people let all the side shoots remain, with the result that they form a hopeless tangle, preventing the sun from getting on to the stems and so being ripened, for if they are not thus ripened they will not give the fruit expected the following year. The shoots must be tied up with strong string to the wire, for the prickly stems being blown about by the winter winds will cut through thin string.

The proof of the pudding is in the eating, and to be successful the fruit must not be picked till it is really ripe. When it is ripe it turns a plum colour; when unripe it is the colour of Raspberries. A Loganberry is peculiar in this respect: it will not carry at all if it is ripe; from the garden to the kitchen is quite far enough for it. Nurserymen who want to sell the fruit in the market must pick it before it is really ripe. A more sour fruit, picked thus, can hardly be found, and no amount of sugar will make it sweet in tarts.

Half Loganberries and half Raspberries, stewed, are better than Loganberries alone, and Loganberry jam is tip-top.

W. F. M. COPELAND.

PRINCE CHARLIE'S ROSE

SIR HERBERT MAXWELL, in the issue of March 18, page 135, is quite right in emphasising the necessity of employing Latin names for plants where exactness is required. I am interested in his reference to my remark about *Rosa alba* being called Prince Charlie's Rose. He tells us that "in the South-West of Scotland we call the double Burnet Rose (*Rosa spinosissima*) Prince Charlie's Rose." I do not question his statement, as it refers to his own district, although it is new to me, but in other parts of the South-West of Scotland it is *Rosa alba* which goes under the name of Prince Charlie's Rose.

In discussing the point some time ago with a member of an old Jacobite family which was in close association with the Stewarts at the times of the attempts to recover the Crown, I was shown a form of *R. alba* as being Prince Charlie's Rose. This agreed with the general tradition in at least a great part of the South-West, and is quite in accord with most of the available literature on the subject. All the probabilities would point to its being the White Rose of York, which was the badge of the armies of Prince Charlie. It is true that there is some doubt as to which was the true York Rose. As the late Canon Ellacombe remarked in his "Plant Lore of Shakespeare": "The White Rose of York has never been satisfactorily identified. It was clearly a cultivated Rose, and by some is supposed to have been the wild White Rose (*R. arvensis*) grown in a garden. But it is very likely to have been the *Rosa*

alba which was a favourite in English gardens in Shakespeare's time. . . . I have little doubt that this is the White Rose of York; it is not the *R. alba* of Dr. Lindley's monograph, but the double variety of the British *R. arvensis*." On the other hand, Folkard, who is generally well informed, tells us in his "Plant Lore, Legends and Lyrics" that "A White Provins Rose was the emblem of the Stuarts upon the accession of the Duke of York to the throne of England. . . . It was said to come into flower on the 10th of June, a day interesting to Jacobites, as being the birthday of the Chevalier St. George." In that delightful little book, "Stray Leaves from a Border Garden," there is nothing to identify the particular Rose in the reference: ". . . there is a beautiful bush of 'Prince Charlie' White Roses in bloom by an old mossy tombstone, the White Rose which used to be so common in Scottish gardens long ago." *R. alba* is still a common plant in Scottish gardens but the double white *R. spinosissima* is scarce.

SCOTCH ROSE.

THE WALLFLOWER

THIS old-fashioned flower is still one of the best and most popular

of garden plants, and as it will soon be at its best in many gardens, most people are inclined to consider its virtues. The Wallflower is to be had in a variety of colours and shades, and it is not only a free-flowering plant, but a very accommodating one, for with proper cultivation it can be persuaded to bloom at any season of the year, though the spring and autumn are the natural flowering seasons. Although not ordinarily looked upon as an indoor window plant, the Wallflower can be turned to such purpose during the winter months, and will bloom profusely just when flowers are most needed. The bloom produced by the Wallflower is not only fair to the eye, but is deliciously scented, so that the plant is worth growing for the sake of the scent alone, even were the blooms as insignificant as those of the Mignonette. Although there is a wide choice of colour and shade in Wallflowers, it seems a pity that a white-flowered strain cannot be evolved. Is such evolution impossible? Perhaps some scientific reader will state his or her view of this particular matter.

April is the best spring month in which to sow Wallflowers in the open, which is the natural and popular method of rearing, and the land should be clean and rich, with a fine surface. With a fine seed-bed practically every fertilised seed will develop into a plant, while a knotty surface means that many of the seeds will perish. Some advise the sowing of Wallflower seed broadcast; but my experience is that, no matter what the habit of the particular variety favoured may be, to sow in rows is the best plan, running the rows north and south if possible. The seedling may be bedded out when 2 inches or so high in rows 18 inches apart, and the plants at 12 inches or so—according to variety—from each other. The richer the bed in which they are planted the better will be the progress made. [We d

not advise very rich soil; the growth made under such conditions is too soft to stand the winter.—[ED.] It pays to mulch if very dry weather is encountered.

A word concerning the choice of varieties may, perhaps, be useful to some. The taller sorts usually carry the best spikes of bloom, while the stocky sorts are the most fragrant and cover the surface more effectively. For ordinary window use, pot up the plants in good time, the latter end of August for preference. Keep them out in the open until there is frost in the air or the month of November is reached, and then promptly take them indoors. When in the house, treat them upon the ordinary window plant lines, and do not keep them too dry at the roots. There is an aspect of the Wallflower that is frequently lost sight of, and that is that the plant will grow in odd positions, such as crevices and crannies that are thought to be suited to out-and-out rock plants.

Bromsgrove.

J. T. B.

COLOURED FREESIAS

BY THE REV. JOSEPH JACOB.

THANKS to the advice and encouragement of Sir Frederick Moore, I took up the culture of Freesias about five or six years ago. Thanks largely to the kindly offices of my old Haarlem friend, Mr. C. G. Van Tubergen, I was enabled to make a good start. I am now, as it were, in the thick of the fray, and I confidently hope that every February I will have a batch of unbloomed seedlings to whose flowering I may look forward. The purpose of this article is to draw the attention of our scientific and "high-l'arn'd" readers to the peculiar and aggravating behaviour of some of my rapidly growing family, and to ask them if they can account for it; also to enquire from fellow-workers—Mr. Van Tubergen, Messrs. C. Smith and Sons, Mr. F. Herbert Chapman and others—if their experience has been at all like mine.

The Lying Dormant of the Bulbs.—I have repeatedly found in time past that a certain number of bulbs failed to produce either leaves, stems or flowers as they should have done, but that they remained below ground seemingly doing a season's best cure, for as I have proved, when they were again planted, they grew all right. I mentioned this in *THE GARDEN* a few months since and asked if anyone could offer some explanation. None has appeared, but I think my bulbs must have seen the little paragraph, for in several cases they have apparently made their way to the surface as if to tell me what was going on, and exposed a new bulb, sometimes two, growing out of the old one—neither old nor new and roots or leaves. This was new to me, and I presume it is to be compared to the behaviour of Tulip bulbs, which do much the same thing kept out of the ground for twelve months. At any rate, it has proved that the bulbs that do not appear are not exactly "Weary Willies"

or "Tired Tims," as I once thought them to be, but that they have been really very busy. All the same, I do not understand their behaviour. Will someone please explain?

The Breaking of Freesias.—What my headman and I have long suspected, I think I can say after last February's experience is a fact. Coloured Freesias share with Tulips and English Irises the peculiar and unfathomable property of "breaking." Whether this strange phenomenon is precisely the same in all the cases I must leave botanists "of high degree" to explain, as I sincerely hope they will. It will doubtless be as interesting to them as it is aggravating to the gardener. As one of the best-known merchant princes of Liverpool in the seventies of last century once said to my father in retailing his experiences of my barn-door tactics at cricket, "It is enough to make a saint swear." Yes; coloured Freesias have this tantalising habit. "We may call it only pretty Fanny's way" (Parnell), but a distinctly upsetting way, all the same. Mauves, heliotropes, roses, pinks and various indescribable combinations all do it. Whites, creams and yellows, on the other hand, do not. They are either proof against it or they have not as yet learned or developed the bad habit. It would, again, be most interesting to learn what the experience of others is, and also it would be a kindly act if one of the afore-mentioned botanists would in a simple way enlighten those who do not know as to whether this strange change or development (?) of the flowers of coloured Freesias is akin to what happens in Tulipdom and also among the English Irises. Up to the present I have seen no record of its having been observed.

Good Varieties.—Van Tubergen's yellows are distinctly good. Apogée (darker) and Canary (paler) for later and Buttercup for earlier flowering are each of them good. Of the coloured ones, give me Contrast (white, with deep orange blotch),

Dainty (good shaped, tall, pale mauve and rose), La Charmante (new, orange salmon rose or some such indescribable conglomeration of colours), Robinetta (deep rose) and Bluebeard (a dwarf purple blue). I have one or two very nice ones of my own raising "coming on." A remarkably good deep mauve or purple blue which has been named Whitewell will certainly take "a lot of beating." I have also a grand early white which I believe must be a self-sown seedling, found in my squire's garden, and which I have called Iscoyd. I have tried a good many strains of whites, but taking one thing with another, none of them is its equal. One has to winter and summer Freesias two or three times to find out what they are like.

BORDER CARNATIONS

BY J. L. GIBSON.

MY recent article on Picotees has evidently stirred up a deal of criticism and interest among Carnation lovers. Since I wrote last, Mr. Keen of Southampton has favoured readers with his selection of Picotees. He particularly gives an extended list of white ground sorts which will interest exhibitors, though hardly appealing to the ordinary grower. I cannot help commenting at some length on Mr. Keen's article, which is so mosaiced with contradictions that, had this been merely a matter of argument, he lays himself open to rather severe handling. At the outset he considers the heading I used, "Border Carnations—Picotees," a misnomer, because cultivators rarely think of planting out Picotees as they do self and fancy Carnations. All my articles have been written under the



A JAR OF THE DOUBLE BURNET ROSE (PRINCE CHARLIE'S ROSE OF SOUTH-WEST SCOTLAND).
A spray of the native Burnet Rose (*Rosa spinosissima*) lies on the table.

primary heading of "Border Carnations," and the sub-heading taken exception to was deliberately chosen; indeed, none other could have been used, as, in spite of Mr. Keen's assumption of the contrary, many growers plant out yellow ground Picotees in the open border, and very successfully grow them there. White ground sorts I would not recommend for this treatment, and I think I specially mentioned that they should only be tried by those who possess a cold greenhouse. Mr. Keen says he can grow the latter out of doors better than the yellow grounds, but I think this can only be a very extraordinary exception to the general experience. It would be interesting to know if he has ever tried Eclipse in the open border, and if so, whether the plants looked strong and healthy.

Reverting to this much talked of variety, Mr. Keen says if I could only see Mr. Douglas' plants of it, or Mr. Morton's, or his own, I would not consider it of weakly growth. Well, I have seen Mr. Morton's stock, and I took a special journey to Bookham to see Mr. Douglas and have his views. It can hardly be disputed that Mr. Douglas specially excels in the fine growth of his Carnations, and he takes pride in keeping his stock up to a very high standard of health. The result of my visit there is that I emphatically repeat all I formerly said of Eclipse. It is a beautiful flower, but the plant a miserable "doer," and no good for the grower of border Carnations.

Mr. Keen says that if Eclipse were planted out in the open in April he thinks it would give as good results as the more hardy selfs and fancies. Why not try it! And why April? Any tender child of the summer bedding-out family would stand the same chance of doing well under these conditions as Eclipse would. Hardy border Carnations are not things to coddle and play at bedding-out with; if they cannot stand the strain of the British climate during the months they are, or should be, establishing themselves in the ground, then they are not border flowers. A Carnation cannot grow robustly and give good grass for propagation if it is planted out nine weeks or so before flowering, and I think Mr. Keen must know this very well.

Before leaving this correspondent's criticism, a word must be said about his selection of varieties. It mystifies me to see an experienced grower recommending Picotees like Zena Dare and Corona in preference to Agnes, Peter Pan and Margaret Lennox. But there again, of course, the writer is thinking solely of the show board and not at all of the flower border. Had I been writing for those who cultivate the

Carnation for the purpose of mutilating the blooms so that they can lie flat on a paper collar, these notes would have been deceptive and incorrect to a degree, and I have but scant sympathy with any Picotee which is useful only for that purpose.

THE WATER LILY TULIP

IN many gardens this beautiful Tulip is the first to open. The flowers are slightly fragrant and



THE WATER LILY TULIP (TULIPA KAUFMANNIANA).

of delightful colouring, varying from deep cream to a rich golden yellow centre, while the exterior is frequently striped rich carmine. It is botanically known as Tulipa Kaufmanniana, but in gardens it is more often referred to as the Water Lily Tulip, from the obvious resemblance of the half-opened flowers to those of the Water Lily. It is by no means a difficult Tulip to grow, for the bulbs do well in almost any soil if planted in September about 4 inches deep. There is a very beautiful variety named aurea, of a rich golden yellow and handsomely feathered on the exterior with scarlet.

THE BEST HARDY BROOMS

DURING the month of May, when most spring flowers are at their best, it is difficult to imagine a more beautiful sight than a deep railway cutting, the banks of which are clothed with the semi-pendent, golden-wreathed shoots of the common Broom, *Cytisus scoparius*. On waste land, wherever the soil is poor, this beautiful wild shrub will be found, usually in

clusters of varying size, sometimes scarcely exceeding a yard in diameter, and at others extending for many times that distance. It is from this grouping of Nature that we should take a lesson when attempting to cultivate shrubs of this kind; isolated bushes, beautiful as they are, do not give us the same bold effects as colonies of three or more, according to the size of the garden and the space to be filled. Although the wild Broom is a very beautiful plant, there are a number of others, some varieties, some species, and others hybrids, that are perfectly hardy in our gardens. These vary in dimensions from almost prostrate-growing kinds, suitable for the rock garden, to others that form small trees; hence their value for different positions in the garden can scarcely be over-estimated.

Soil and Cultivation.—To those whose gardens are composed mainly of sand or very poor soil, these hardy Brooms are of the greatest value. The more starved they are, the better they seem to flower, although growth is not, perhaps, quite so rapid as where the diet is rather more generous. For the wild garden, where there are rugged banks to clothe, or large, irregular shaped beds to fill, no better plants can be found. It is, however, always advisable to keep them clear of weeds until they have attained goodly dimensions, so that they are able to fight for themselves in the great battle of the survival of the fittest.

Young plants in pots should be purchased, as Brooms resent serious disturbance of their roots. Most of the species can be raised from seeds sown in pots or boxes of sandy soil in autumn or spring, but the varieties and hybrids are usually propagated by means of cuttings. This, however, is work for the nurseryman to undertake.

Pruning.—Young plants should be cut back rather severely for the first year or two after planting, so as to induce them to form a bushy habit; but once the foundation is laid for this little use need be made of the knife. The purple-flowered Broom, *Cytisus purpureus*, however,

differs from others in this respect, as it benefits considerably by being cut back nearly to the ground level each year after flowering, young shoots springing from the base to take the place of those removed. The following Brooms are May flowering except where otherwise stated:

Cytisus ætnensis is the Mount Etna Broom and one of the latest to flower, being at its best usually in August. It eventually makes a small tree with pendulous, Rush-like shoots, whence its golden flowers are produced in abundance.

C. albus.—This is the white Spanish Broom. It forms a semi-pendulous bush from 4 feet to 8 feet in height, and flowers freely.

an erect bush several feet in height, and produces curious purplish-coloured flowers.

C. decumbens is a native of Europe, and like *Ardoinii* is best suited for the rock garden. It rarely exceeds 6 inches in height.

C. kewensis.—This is a beautiful little hybrid that was raised at Kew some years ago. Owing to its prostrate habit it is well adapted for the rock garden. At Friar Park, Sir Frank Crisp has it planted in colonies at the summit of large boulders, so that its shoots hang partially suspended over miniature precipices. The plants give one the impression of a cascade of flowers.

C. nigricans.—This is a late-flowering European species, its deep yellow blossoms opening in July.

andreanus being most frequently met with. It has the same habit and freedom of flowering as the type, but each of the wing petals is heavily blotched with warm brownish crimson. The Moonlight Broom, *C. scoparius sulphureus*, is another beautiful variation of the wild Broom.

THE GARDENS AT HATFIELD HOUSE

A GARDEN that has been a garden for three centuries and more has a quality that no new planting, however skilful, can give. There are trees here which foreign Sovereigns sent oversea to the great



THE OLD MULBERRY TREE AT HATFIELD HOUSE.

C. Ardoinii.—A dwarf species from the Maritime Alps. It rarely exceeds 1 foot in height, and is therefore a good shrub for the rock garden.

C. Beanii.—A dwarf hybrid raised at Kew and named after the Assistant-Curator, Mr. W. J. Bean. It is a gem for the rock garden, its golden yellow flowers being freely borne.

C. biflorus.—This makes a neat shrub almost 5 feet high, and is one of the earliest to flower, its small yellow blossoms being produced in pairs in April.

C. Dallimorei is another hybrid raised at Kew by Mr. W. Dallimore, after whom it is named. Its parents are *C. alba* and *C. scoparius andreanus*, and it is intermediate between the two. It forms

It makes shoots 4 feet or rather more in height, and flowers on the current year's wood; hence as much old growth as possible needs to be pruned away in winter or early spring.

C. præcox.—One of the prettiest of the early flowering Brooms. It grows from 6 feet to 8 feet in height, and flowers when quite young. Its blossoms are creamy white, and usually open during the last week in April.

C. purpureus.—This is a dwarf-growing species when pruned annually as already advised. It produces purple flowers.

C. scoparius is our wild Broom and is well known to every lover of the country. There are several beautiful varieties of it, the one named

Secretary—the old Mulberries are among the most aged in England. The privy garden keeps its arcaded hedge south, east and north for shelter, the grass plots follow the lines laid down by philosophers who planned gardens for their meditations. The maze and other toys of the topiarian artist are not wanting. Beyond all this is the great park to give the gardens their due remoteness from the world, the park with its legends of great Elizabeth's quiet days. For his empaling Hatfield Wood as a park a doggerel rhyme remembers the Earl who, after building Hatfield and laying out its gardens, found that a narrow chamber in the parish church would serve all his need.

AUBERGINES OR EGG PLANTS

A RECENT issue of THE GARDEN contained an illustration of an Egg Plant and a brief note on the cultivation. As one who had struggled for three or four years to try to get effective plants from a culinary point of view, it came as a painful shock to find that their culture was so easy. When the order to grow them for cooking was received, it was taken as a matter of course; and after reading the instructions on seed packets and elsewhere, the work was put in hand gaily, and certainly some fruits were obtained; but our good friend the chef was very sarcastic. He said, "They vas full of peepsh [pips] and bitter as gall," and made an especial point at all seasons of the year of asking how they were growing. This became monotonous, and so did the failures.

The first and second batches were grown in pots, and then it was decided to grow some in a small

Continent and in the East, some of which are Mad Apple Jew's Apple and Brinjal. They are all forms of *Solanum Melongena*. The Aubergine is extensively used as a vegetable, and when well grown and cooked it makes an excellent autumn dish.

The seeds may be sown in the middle of March or early April, unless very early crops are required. Sow thinly in pots or pans in moderate heat, much in the same way as Tomato seeds, and the aim should be to secure a stout, sturdy growth. The seedlings should be potted into small or large 60's containing loam, leaf-soil and rough road sand; then on into 48's or 32's in the same compost. For the final potting 24's or 8-inch pots will be required, and the compost should be rough loam, spent Mushroom-bed manure, and a good dash of some patent fertiliser with not too much nitrogen in it. (Our own preference for this particular crop is Chelsea manure.) The final potting should be done very firmly, and a stout 3-foot or 4-foot stake inserted.

A moderate temperature is needed during the early stages of growth, ventilation being increased

that the plants will give a succession of fruits over a long period. The best varieties for cooking are Perfection and Early Long Purple, but Purple Tokio is a very heavy cropper. The white varieties are not considered so good for cooking, and the scarlet should only be used for decorative purposes.

Red spider is the worst pest, but the syringe, used intelligently, will keep this enemy at bay.

Anyone who has tasted Aubergines when well cooked will not want to grow them to look at.

GEORGE CRADDOCK.

Bishop's Hall Gardens, Romford.

THE DUCHESS' GARDEN AT BELVOIR CASTLE

EVERY lover of a beautiful garden should take the opportunity of visiting the Duchess of Rutland's garden at Belvoir. It is mainly devoted to spring gardening, and from now forward the flowers gradually unfold their petals, and there is quite a blaze of colour in the early months of the year. The garden is set like a gem in the Belvoir Woods, sheltered from the cold blasts and exposed to the warm rays of the sun. The belt of sombre trees which hem it in on all sides but the south makes an ideal setting for the garden, and by contrast throws up the delicate colouring of the spring flowers.

Quite early in the year there is an exquisite display of the vari-coloured Aubrietia, relieved with Arabis alpina, Saxifrages and large-flowered pink Daisies. The bedding scheme takes the form of a floral cascade on a sloping terraced bank, the water being represented by the Aubrietias and the foam by the white Arabis, the whole being flanked by large-leaved Saxifrages, &c. The rock garden, down which a cascade of water flows, is gay with Polyanthus, Primroses and Daffodils in a natural setting, with no attempt at formality.

On the grassy slopes there are well-arranged beds in which the Belvoir Castle Wallflower is conspicuous. One huge bed, in the shape of a horse-shoe, was filled with Myosotis (Forget-me-not), out of which Tulips of various colours reared their heads. Another bed had an edging of pink Daisies, backed by a ribbon of white Poly-

anthuses, and the centre filled with Wallflowers. Dotted about the garden are fine clumps of the sweet-smelling Azalea, and on the fringe of the woodlands Rhododendrons of various colours and of enormous size complete the picture.

At the entrance to the Duchess' garden there is a rustic pergola, and here and there along the terrace are cosy arbours which command comprehensive views of the garden on the slope below. If the walk is continued through the woods beyond the Duchess' garden, the visitor will arrive at the water garden at Frog Hollow. Here a beautiful view presents itself—a large lake, with islands gay with Azaleas and Rhododendrons, backed by a sombre belt of trees. Delightful walks wind here and there about the islets, the air is



A SPRING SCENE IN THE DUCHESS' GARDEN AT BELVOIR CASTLE.

border inside and some outdoors; but the results were even worse. The growth that was obtained was splendid, and if they had been grown as foliage plants the results would have passed all expectations; but it was fruits that were required. This year, however, our disappointment was to some extent softened by being told by our employer that the late King Edward had said that no English gardener could grow Aubergines. That was certainly consoling, but not very satisfying. At last the one little thing that was essential was discovered, and all the difficulties vanished. It was so simple that one could hardly think it would make all the difference; but it did.

The Aubergine or Egg Plant is variously known in different forms under several names on the

later, until in July or August a house thrown open day and night suits them admirably. Stop the plants when 6 inches high, and again if the flowers do not show fairly close to the main stem. The flowers should be pollinated as for early Tomatoes, but later in the season this is not so necessary.

The little thing that made all the difference comes in at this stage. As soon as the flowers are seen, stop the growth at one leaf beyond the flower, when, after that is set, it will send out another growth, which must be treated in a like manner, and so on until the end of the season.

For cooking, the fruits should be gathered when they have attained their full size but before the seeds have formed very much, and it will be found

redolent with the scent of the Syringa and pink "May," and wildfowl disport themselves in the lake. It is a scene that lingers long in the memory.

Through the courtesy of the Duke and Duchess of Rutland, the gardens are open to the public every weekday without charge, and anyone who appreciates floriculture will be well advised to spend a day at Belvoir. During the season conveyances meet the trains at Bottesford and Redmile, and there is excellent accommodation to be had at the Peacock Hotel, just below the Castle at Belvoir.

Legbourne, Louth.

HENRY WALKER.

CAMPANULA EXCISA

ONLY those who are well acquainted with the smaller Campanulas or Harebells can fully understand the warmth of pleasure their flowers bring to those who love them and have learned to appreciate the many points which constitute their fascinating beauties. Some of these Campanulas are so rare in gardens that they come but seldom within the ken of the average lover of flowers. Among these is *Campanula excisa*, a charming minute species. The accompanying illustration gives an excellent idea of the main features of the plant. It shows, for example, one of the distinctive features of the species, the holes which appear as if they had been bitten or punched out of the blooms, and the slender, graceful, wiry habit of the deep green stems and leaves which accompany the flowers. *C. excisa* has a somewhat rambling habit which increases by means of underground shoots, sending up little growths as the plant spreads.

It must not, however, be concluded that this habit is dangerous to the welfare of other flowers in the rock garden. The truth is that *C. excisa* has a singularly provoking way of dying off at its original source and appearing—should it appear at all—quite near and not in a troublesome fashion for other plants. Provoking as this is, it is as nothing compared with the fact that too frequently the Harebell does not reappear at all, but has to be written off as a total loss. It is not easy to account for this, although, as I have found, the attacks of slugs may have something to do with it. Plants which appear to be established and which have survived for a series of years desert us in the most irritating way, and we are left lamenting our favourites.

To cope with this, various attempts have been made, more or less successfully. Moraine treatment seems as successful as any, although a cool spot in loam, peat and sand appears to be excellent (so far as anyone dare venture to speak) on a level part of the rock garden where it is well drained.

By far the finest *C. excisa* I have ever seen was in the garden at Wennington Hall, where Mrs. Saunders grew so many charming alpines. At Wennington Hall *C. excisa* was cultivated in a sort of raised artificial moraine surrounded by a kind of "box" of rubble, which gave ample drainage to the plants. *C. excisa* was there a little picture, spreading freely and perfectly delightful in its way. With too many, however, the experience is the same as that given by Mr. Reginald Farrer in one of his latest pronouncements, in which he says: "With me it dies off everywhere and never comes up anywhere else." One point should be observed by all who may desire

to attempt to grow *C. excisa*. This is that it abhors lime in any shape or form. To succeed with this gem is to achieve a success which is ample recompense for many disappointments and discouragements.

Dumfries.

S. ARNOTT.

APPLE GROWING IN NOVA SCOTIA

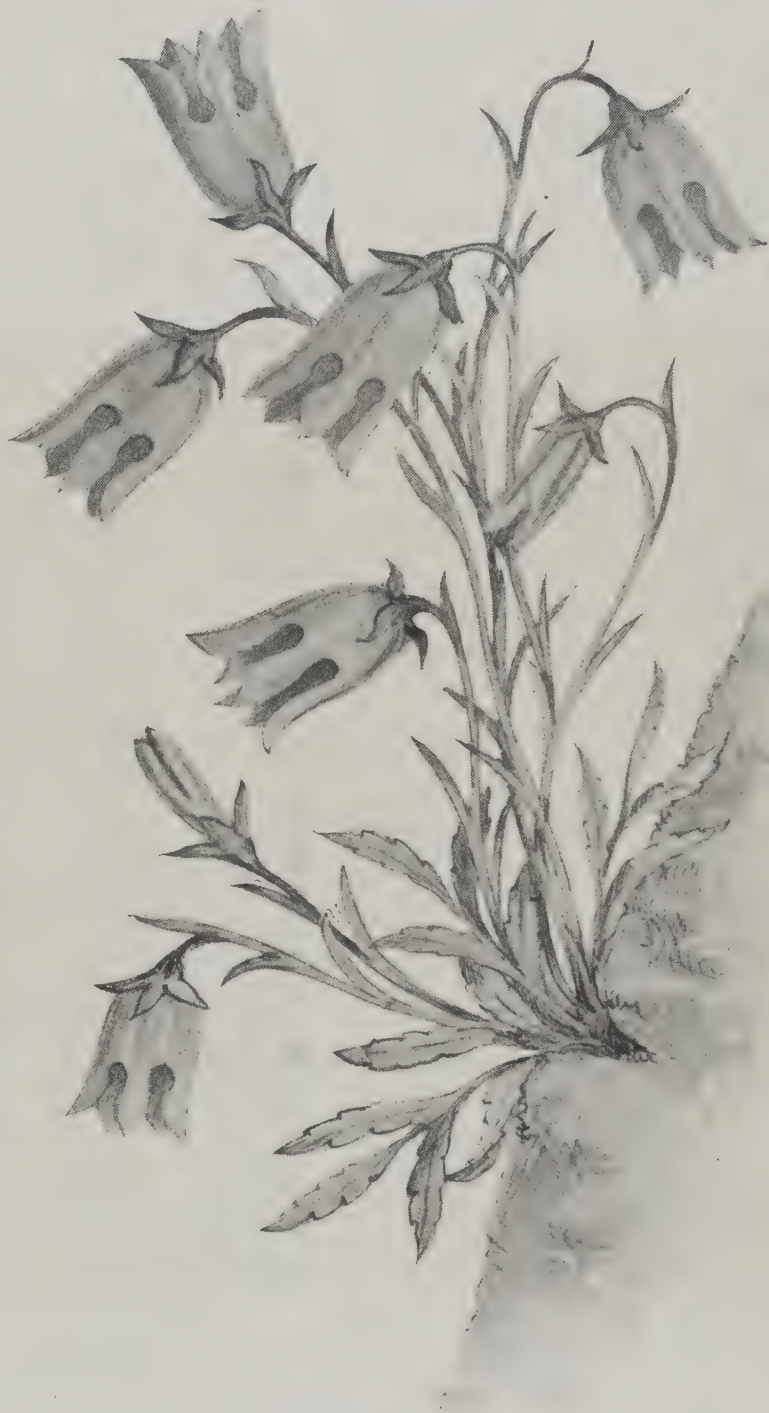
WE are pleased to publish the following letter from an old contributor, Mr. A. C. Wyatt, whose present address is The Grove, Wilmot, King's County, Nova Scotia, and we hope the prospects that he holds out for fruit growing in the land of his adoption may prove helpful to others:

"Some three or four years ago you advised me to go in for fruit farming. Well, I have done so, and have two farms, one of 100 acres and another here, very choice, of 40 acres, with a young orchard bringing in 500 barrels, and will be 1,000 barrels soon. I am desirous of knowing how the following Apples are selling: Cox's Orange, Worcester Pearmain, St. Edmund's Pippin, Crimson Bramley's Seedling, Lane's Prince Albert, Lord Derby and Newton Wonder. I root-grafted 1,000 of the above varieties last winter, and propose to graft 3,000 this, on Broad-leaved Paradise stock. I have made the selection on the advice of the Royal Horticultural Society, but now I want to know which realise the highest prices and are most profitable. Cox's Orange is generally a shy bearer in England, but here it might do better on my warm, light soil. Crimson Bramley's Seedling I am told is fetching higher prices than any Apple—\$8 to \$12 a barrel—but I think there must be a mistake, as it is not a table Apple. Ribston Pippin on my farm is a great bearer; in England it is the shyest of bearers, and as Cox's Orange is said to be a seedling from it, I think my soil would make it profitable.

"I am anxious to grow only one, two, or three of the best sorts that are most profitable. I realise that a heavy bearer may be more profitable than a higher-priced, shyer bearer. It seems likely, however, that Crimson Bramley's Seedling will prove both the heaviest bearer and highest priced. Newton Wonder seems likely to be a rival. On the North Mountain, where my other farm is, Blenheim Orange grows to greater perfection almost than any other; hence it is almost certain that Crimson Bramley's Seedling will succeed, as it is looked upon as a seedling from it. If any

of your friends wish to try Apple growing, the Annapolis Valley offers advantages which British Columbia cannot. A farm, with bearing orchard, plenty of land, and a comfortable house and outbuildings, can often be bought for less than the price of raw land in British Columbia, it grows better-flavoured Apples, is right on the seaboard for shipment to England, and 3,000 miles nearer market than British Columbia. I should be happy to answer any enquiries."

Unfortunately, it is not possible to give reliable information on the market prices of Apples. Market values vary from week to week, sometimes



CAMPANULA EXCISA. (Life size.)

from day to day. One thing is certain, and that is that high quality and good-flavoured dessert Apples in fine condition will command good prices at all times, and the same with cookers. Why not stick to Cox's Orange, Ribston Pippin (these, we think, would not canker on a comparatively light, warm soil), Newtown Pippin, Blenheim Orange, and, for latest of all, Annie Elizabeth, one of our grandest late dessert Apples? There is no variety more handsome or better and it succeeds well near the sea. It is good for cooking or dessert.

Of cooking varieties, the best of all is still the old variety Wellington. True, the tree is more or

less subject to canker in this country, but on warm land it would, no doubt, be free from this blemish. Good samples of this variety command a higher price than any other sort. We should say that Schoolmaster would be the next as regards quality, and Newton Wonder next, one of our most valuable Apples, a cross between Blenheim Orange and Wellington. Crimson Bramley's Seedling, it goes without saying, is indispensable (the green variety is better liked in London than the red). Lane's Prince Albert, Tower of Glamis, Alfriston and Northern Greening are quite among the best; and for early marketing, Potts' Seedling takes a lot of beating.

The great fault we have to find with most of the imported Apples into this country is that their flesh is comparatively dead, with its juices and flavour mostly evaporated. They generally compare very unfavourably with our own grown in this respect.

THE MAKING OF GARDENS—VI.

By G. DILLISTONE.

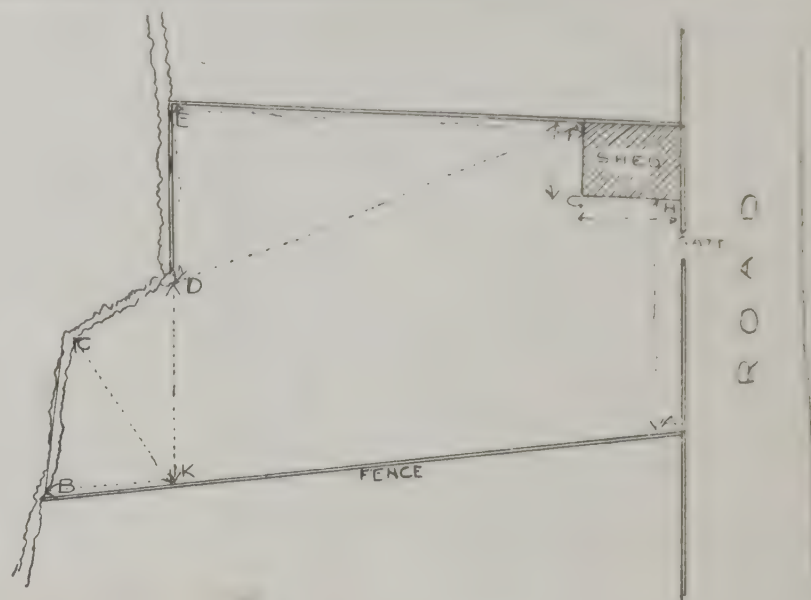
MEASURING SMALL AREAS.

ALL the instructions I have hitherto given refer to areas of considerable extent, and although the principles can be applied to an estate of a square mile, or a few square yards, there are simpler methods of measuring very small plots, such as shown in Fig. 11, which represents a plot of land surrounded by a fence, with a shed in the

corner. In this case the shape can be seen at a glance, and the best method is to make a sketch plan on the site and proceed as follows: First measure the length of all the outside lines, A to B, B to C, C to D, D to E, E to F, F to G, G to H, H to A. This is where most people stop, and the subsequent plan is therefore inaccurate. There are no tie measurements in these. If, however, the line E D is extended to K, and a dimension taken, and another taken from K to C, the plan will be accurate for this end of the plot, and if one more dimension is taken, D to F, the whole will be infallibly correct.

One frequent requirement in gardens is to know how to measure a broad curve, and of several methods the following (see Fig. 12) will generally be found the most useful: Let A to B be the curved edge of a shrubbery, and it is desired to know the length of the margin from point to point. Measuring along the curve is not sufficient, but if a line be laid down C D with a fixed dimension of, say, 100 feet, from a point E, first measure E to A, then from E through points advancing 5 feet along C D, each time as shown by dotted lines to the edge of the border. The distance at which C D crosses E A and E B will require to be known, and the curve can then be set out with accuracy on paper to scale.

I have already given the method of finding the areas of triangles; but for the purpose of estimating the quantity of material required, such as turf for a lawn or the number of plants required, it is often necessary to find the area of beds of other shapes, and the following particulars may prove useful: For a square or quadrangular figure with two equal sides, multiply length in feet by breadth in feet, and the result will be square feet. If it is a quadrangle of which the sides are unequal, measure the diagonal and sides and treat as two triangles, adding the results together. To find the number of square feet in a circle, measure the diameter and multiply by three, which gives the approximate circumference. Multiply the length of the circumference thus found by half the diameter, *i.e.*, the radius; this divided by two will be the area in square feet. If, therefore, the bed is to be planted with anything requiring to be a foot apart, it will take approximately as many plants as there are square feet, less the number of feet in the circumference, which, being the outer edge, cannot be planted. This brings the articles dealing with the taking of



11.—SHOWING HOW TO MEASURE SMALL PLOTS FOR THE PURPOSE OF PREPARING PLAN OF SAME.

measurements to a close, and the reader should now be in a position to make a detailed survey of any reasonable area of ground for the purpose of preparing a plan of same.

NEW AND RARE PLANTS

FIRST-CLASS CERTIFICATE.

Lælio-Cattleya Britannia Blenheim Variety (*Lælia Canhamiana alba* × *Cattleya gigas* Frau Melanina Beyrodt).—The sepals and petals are pure white, long, and almost lanceolate in outline. Lip purplish crimson, with yellowish tube. From His Grace the Duke of Marlborough, Blenheim, Woodstock.

AWARDS OF MERIT.

Cypripedium W. Lloyd variety Negro.—The varietal name is suggestive of a singularly dark form, whose glossy, maroon crimson flowers appeal by reason of their distinctness. The dorsal sepal has a faint mottling of white. This sturdy and good-looking *Cypripedium* came from Messrs. Armstrong and Brown, Tunbridge Wells.

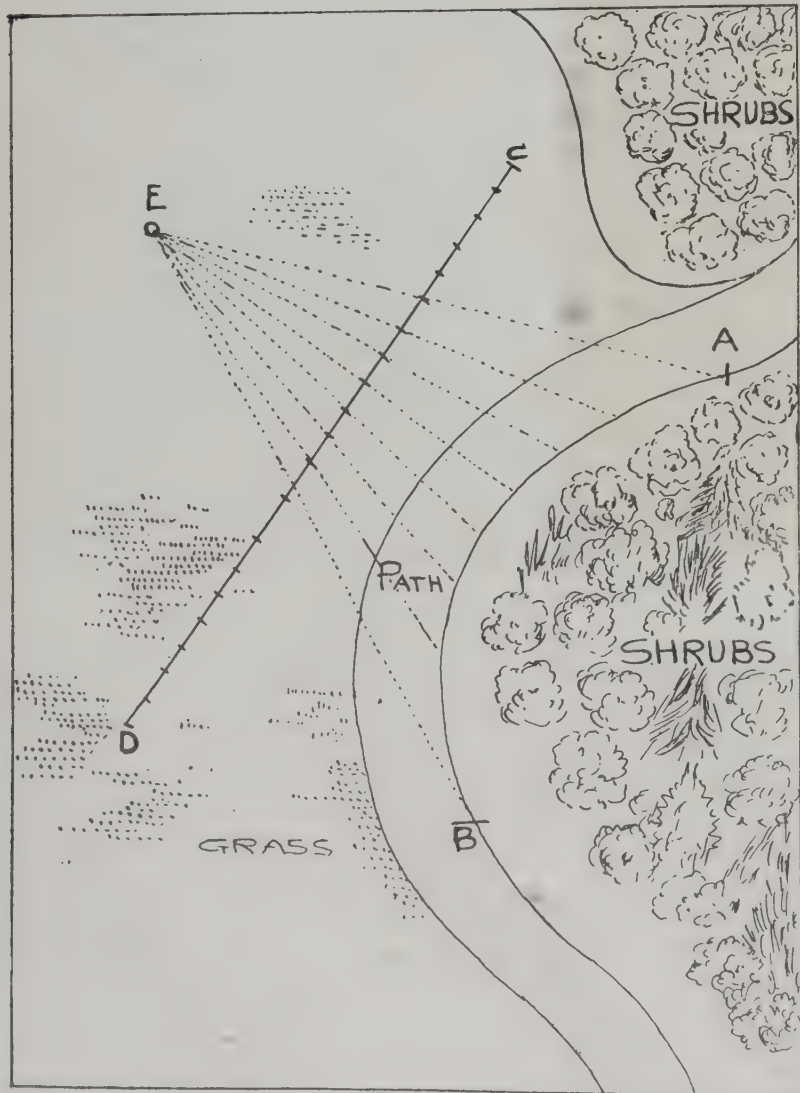
Odontioda Joan Bryndia Variety (*Odontioda Charlesworthii* × *Odontoglossum ardentissimum*).—The whole flower is of rich ruby red colour, save for the white mottling on the lip. From Dr. Miquel Lacroze, Roehampton Lane.

Odontoglossum illustrissimum Shrubbery Variety (*O. ardentissimum* × *O. Lambeauianum*).—A particularly handsome and attractive variety, whose ovate, broadly overlapping petals of clouded maroon tone are relieved by the faintest white margin and a pronounced white lip. Shown by F. Menteith Ogilvie, Esq., Oxford.

Odontioda Prince Albert (*Odontioda Zephyr* × *Odontoglossum percultum*).—A strawberry red tone dominates the flowers of this excellent novelty. The lip has a ground colour of magenta, with yellow disc. A variety of exceptional petal quality. From Messrs. Flory and Black, Slough.

Narcissus Poetry.—There is something in this novelty which in a measure recalls *Minerva* of the *Poetaz* set, though it is greatly superior to that variety and far more refined. The perianth is white, the flat cup of lemon yellow tone. Several of the scapes were two-flowered. It is shapely and good. Award recommended for the rock garden. From F. Barchard, Esq., Uckfield, Sussex.

Narcissus Ozan.—A bicolor *incomparabilis* of exceptional merit. The variety has perianth segments of creamy white, and a rather long crinoline



12.—SHOWING HOW TO MEASURE A CURVED BORDER FOR THE PURPOSE OF PREPARING A PLAN FOR PLANTING.

formed cup of lemon and sulphur colour. Award granted for show purposes.

Narcissus Palmero.—This striking novelty is of the yellow Barri set, having full yellow coloured perianth segments and rich orange scarlet crown. Award for show purposes. These two were from the raiser, Mr. Alex. M. Wilson, Shovell, Bridgwater.

Narcissus Double Sir Watkin.—This exceptionally handsome double incomparabilis originated, it is said, as a sport from the well-known and justly popular Sir Watkin; hence its name. In the doubling all trace of the original has gone. What remains is an imposing double Butter and Eggs—yellow, with gold interspersed—invaluable for any purpose for which Daffodils are cultivated. For the moment, however, and for technical reasons, the award is granted to it for show purposes. It came from Messrs. R. H. Bath, Limited, Wisbech.

Primula Zuleika Dobson (*P. viscosa* × *P. Auricula*).—The most handsome of the blue-flowered hybrid Primulas yet seen, with blossoms $1\frac{1}{2}$ inches in diameter. The evidence of the first-named parent is not seen, the greater leaning being to the Auricula in size and form of flower, and also of leaf. Indeed, it might easily pass for an alpine Auricula. Shown by Mr. Clarence Elliott, Stevenage, Herts.

The whole of the foregoing novelties were before the Royal Horticultural Society on April 11, when the awards were made.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Kitchen Garden.

French or Dwarf Beans.—A few rows may now be sown in the open ground, selecting a sheltered position if possible. Both Cos and Cabbage Lettuce, Endive, Radishes, Mustard and Cress should be sown for succession.

General Reminders.—Good Friday and Easter Monday are, at any rate in normal times, two busy days for the amateur gardener, and this year he should make every endeavour to get the maximum quantity of vegetables from his garden. Many seeds quoted in previous calendars may still be sown, and Potatoes in particular must receive attention. Beds of Cabbage now fit for use may be cleared directly the crop is cut, and Potatoes planted. Later beds must be hoed and kept free from weeds. Winter Greens can be discarded directly they show signs of flowering; Brussels Sprouts and Spinach may be treated likewise. Dig the ground at the first opportunity. Second-early Peas may be sown either in prepared trenches or on the flat surface. A number of Vegetable Marrow seeds should be sown in pots for planting out directly all fear of frosts is passed.

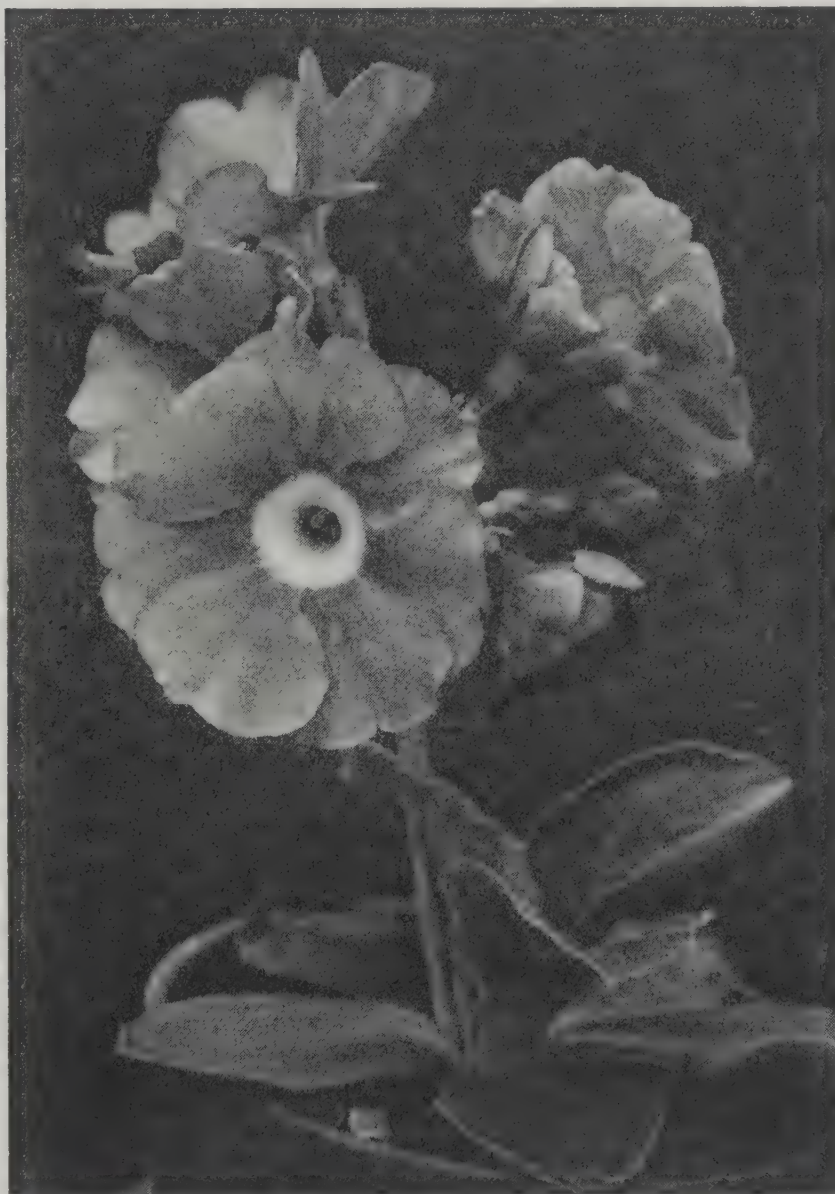
Fruit Under Glass.

Cucumbers.—These are often in great demand, and fruiting plants will require frequent attention in regard to stopping, to prevent them becoming non-productive. The fruits must also be cut when large enough, and if placed in water in a cool house they will remain in good condition for some days. Encourage side growths and stop each shoot at the joint beyond the fruit. Syringe the plants liberally during bright weather and close the house early. Keep them well supplied with water, and an occasional dose of liquid manure or some other stimulant will be beneficial.

Hotbed Materials should be collected and a hotbed made at the earliest opportunity. This will be useful for striking cuttings, and for a later crop of Melons or Cucumbers.

The Flower Garden.

Violets.—Preparations must now be made to secure plants for next season, and healthy, vigorous runners should be selected, not the old crowns which are occasionally recommended. A border or piece of ground that is partially shaded should be chosen, and the single varieties planted 1 foot apart, while the double kinds do not require quite so much space. If the weather is dry, give a good watering, and protect from strong sunshine with a few stout branches of evergreens. The plants must never suffer from drought, and during hot weather they should be sprinkled with water in the evening. This will prevent an attack of red spider, and an occasional dusting with well-



THE NEW HYBRID PRIMULA ZULEIKA DOBSON.
Which received an Award of Merit from the Royal Horticultural Society.

seasoned soot will not only promote healthy growth, but also have a tendency to keep the red spider down. Good culture throughout the summer months is the forerunner of an excellent crop of flowers next winter.

The Hardy Fruit Garden.

Raspberries.—The young canes will be pushing up from the base, and in most cases a certain amount of thinning will be necessary. The number of canes to be left will depend upon the space to fill and the distance between the clumps.

Loganberries and the various other hybrids in commerce may receive similar treatment. A mulching of manure should be given if such work has been omitted.

Plants Under Glass.

Coleus thyrsoideus.—When they are available, cuttings of this beautiful blue-flowered

Coleus may be inserted in sandy soil. They soon form roots if placed in a warm house. Pot off when rooted and grow in a warm house, say, one with a temperature of 60°, keeping the plants near the roof glass. They may be stopped once or twice during their early stages. Cuttings rooted later in the season may be placed three in a pot and grown on without any pinching. These generally prove very useful.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Early Cabbages.—Stir the soil between the rows of autumn-planted Cabbages, and dust some artificial manure among them to hasten them to maturity as quickly as possible. Make fresh plantations as soon as the spring-sown crop is ready.

Brussels Sprouts.—Besides the plantations made from those sown in August, a spring-sown batch should be planted as soon as the plants are ready. A supply of Brussels Sprouts cannot be depended on in these Northern districts from spring-sown plants alone, so it is advisable to have a portion of both; the spring sowings generally give a good supply at the end of the season. A sowing in heat early in the year may also be made to take the place of autumn-sown plants, but this requires room under glass, which is generally in demand for other subjects.

Onions, Carrots and Parsnips.

The outdoor sowings of these will now require thinning. This should be done as soon as the plants are large enough to handle, allowing about a foot between the Parsnips, 6 inches between the Carrots, and 3 inches to 4 inches between the Onions. The Early Horn varieties of Carrot do not require so much thinning, and these should not be sown alongside the main crop as it is claimed that the daily pullings encourage attacks of the grub. Batches of Early Horn Carrots should therefore be sown at intervals to keep up the summer supply, leaving the main crop undisturbed until matured. The Dutch hoe must now be used frequently among these and all other garden crops. A useful labour-saver will be found in one or other of "The Planet Junior." garden hoes.

The Flower Garden.

Half-Hardy Annuals.—The most forward of these should be moved to cold frames to harden off, making room for those not so far advanced. Continue to pick out the remaining seedlings before they become overcrowded. The beds may be prepared now in view of commencing to plant soon such subjects as Antirrhinums, Pentstemons, and others of the hardiest nature. Transplant the East Lothian Stocks into cold frames or into boxes again, giving them more room. This

second transplanting ensures them having a mass of fibrous roots when they are put in their flowering quarters.

Gladioli.—Those bulbs that have not been put in pots to start should be planted out of doors now without delay, putting them about 3 inches deep with a little sand at the base of each bulb, especially if the soil is stiff and cold. Certain varieties require a much longer season than others to come into flower. This can be easily ascertained from the catalogues of specialists if not from the grower's own observations. Those needing the longest season would require starting in pots in a little heat, but a good selection for cutting purposes or for a display can easily be obtained from bulbs requiring no protection under glass to start. Brenchleyensis is hard to beat as a bright-coloured and inexpensive sort. Gandavensis hybrids are also useful for a mixed display. In Baron J. Hulot we have the nearest

approach to blue obtainable, while Halley and Pink Beauty are lovely shades of salmon and pink.

General Work: Lawns.—Renovate bare patches on lawns either with fresh pieces of turf or by sowing seeds. Trim the grass edges neatly and prepare the lawn for the mowing-machine by brushing and rolling carefully, for if this is not well done, the cutting blades will be damaged at the first cutting. During hot, dry weather the collecting box should be removed from the machine, leaving the cut grass to form a mulch and protection from drought, besides improving the surface. Walks should be hoed or have weed killer put on them, and rolled on every favourable occasion to keep them firm.

Yew Hedges.—The clipping of these may now be proceeded with, as well as all other formal evergreens. Where the Yew hedges are showing any signs of exhaustion, they may be assisted in various ways: a top-dressing of farmyard manure may be laid on and covered with soil, bone-meal might also be lightly forked in on the surface, or, where convenient, liquid manure or sewage may be given liberally.

Wall Gardening.—Walls that have been established for a considerable time will now require some attention. Some free-growing subjects need to be curtailed to prevent them overgrowing small specimens. Any spaces requiring fresh plants should be filled up. This needs careful handling as the roots require to be placed well towards the interior of the wall, where they will get sufficient moisture. The soil should be picked out with a sharp instrument to the desired depth, and the plant inserted with some fresh soil, which should be packed tightly, finishing with a wedge of stone to keep all in position. A good deal of discretion is necessary in selecting suitable subjects for the wall garden, as some prove veritable weeds and usurpers when once they get a hold, and only a complete reconstruction of the wall is sufficient to get rid of some of these objectionable little pests. In a weak moment I put in a small piece of the common Toadflax when building and planting a wall, and I have ever since been trying to keep it restricted. It, however, is gradually gaining, and the only consolation to be looked for is that if the wall should in the future be neglected, the Toadflax will soon clothe it from end to end. A good plan for renewing the occupants of the wall is to sow seeds, and this can best be done by rolling a ball of soil into a damp and plastic condition, into which seeds have been mixed, then placing it in small pieces into the crevices where it has no chance of falling out. The moisture is generally retained long enough for the seeds to germinate, when their young roots will soon find congenial quarters by clinging to the stones. If the base of the wall happens to be a gravel path, many self-sown seedlings will be found there, which can be successfully transplanted when in a small state.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

OBITUARY

JULES GRAVEREAUX.

THE lovers of the Queen of Flowers the wide world over will deeply regret to learn of the death of M. Jules Graveraux, the eminent French rosarian, which took place recently. This sad event is not only a loss to French horticulture, but to the Rose world at large, for M. Graveraux may be considered the most widely respected amateur of that very popular flower.

His famous Roseraie de l'Hay is of universal repute, and an excellent account of it, written by himself and translated by the writer of these notes, was published in the Rose Annual for 1914. The article was accompanied by some interesting illustrations, to which we refer the enquiring reader. We regret that pressure on our space precludes any detailed account of the life and labours of the deceased. He was indeed a notable

figure in French horticulture by reason of the creation of his garden and its wonderful collection of Roses. From every point of view, botanical and commercial, he was directly or indirectly responsible for the great progress his favourite flower has made.

He was consulted as an undisputed authority when Bagatelle, La Malmaison and the Elysée Rose gardens were laid out. Those visitors to Paris in the spring of 1910 who remember the Retrospective Rose Exhibition need no reminding of the perfect museum of curiosities, literary, historical and artistic, which he exhibited on that occasion, and the wonderful variety of valuable objects he then showed from his remarkable collection. It was a unique sight, save for the Chrysanthemum Retrospective Exhibition held at the same place two years before, and a kind of display never attempted in this country.

Many distinctions, of course, were conferred upon him. He was Honorary President of the Société Française des Roséristes, and President of Honour of the Rose Committee of the National Horticultural Society of France. As an author he was responsible for a good deal of literary work, of which we may mention "La rose dans les Sciences, &c.," "Roseraie de l'Hay Catalogue, 1900," "Les roses cultivées à l'Hay en 1902," and others. He was a Commander of the Mérite Agricole and an Officer of the Légion of Honour.

ANSWERS

TO CORRESPONDENTS

THE GREENHOUSE.

PROPAGATING BEGONIA GLOIRE DE LORRAINE (*A Constant Reader*).—When Begonia Gloire de Lorraine has done flowering, the plants should be partially cut down to within a few inches of the pot, and be kept somewhat drier than before. Then, after three weeks or a month of this treatment, they must be put into a warmer structure, say, with a temperature of 60° to 70°, given more water, and encouraged to grow by an occasional syringing overhead. This will lead to the production of young shoots near the base of the plant. These form the best of cuttings, and a suitable time to put them in is as soon as they are about 2 inches in length. For striking the cuttings the soil should be of a light, open nature, such as equal parts of loam and peat or good leaf-mould, with about half a part of silver sand. The cuttings should be put singly into small, well-drained pots, and placed in a close propagating-case in the same temperature as that in which they have been grown, while, if available, a little bottom-heat will be beneficial. Of course, they will need to be shaded from the sun.

CULTURE OF AMARYLLIS (*Mrs. E. P. K.*).—With regard to the culture of Amaryllis in a cool house, they should, commencing from the present time, after flowering be placed in the warmest part of the structure in order to make their growth. They must be kept watered, and if the roots are in good condition an occasional dose of liquid manure will be beneficial. So treated, good sturdy growth will be the result, and a corresponding increase in the size of the bulbs. In June the plants may, if there is a cold frame available, be removed thereto, just shading them a little during the hottest part of the day. Air must, of course, be given on the frame in the daytime, but if the plants are syringed and the frame shut up before the sun is quite off it, the plants will be greatly benefited thereby. As the summer advances, shading must be discontinued, as full exposure to the sun will ensure a thorough ripening of the bulbs. As the leaves turn yellow, less water should be given and the syringing omitted altogether. When quite dormant, water must be discontinued, and during the winter the soil should be kept quite dry. They must at that time be placed in a greenhouse where, if possible, the temperature does not fall below 45°, for though we have had an instance of the thermometer falling to 32° without injury to the Amaryllis, this entails a certain amount of risk, particularly in the case of the choicer and more delicate varieties. About the middle of February they may be placed under conditions favourable to growth and given a little water, to be increased as the flower-spikes push up. Before starting them, it is good policy to examine the condition of the roots, and if any are in a bad state they should be shaken clear of the old soil and repotted. If there is no frame available for them during the summer, the plants may be kept altogether in the greenhouse,

treating them, as far as possible as before advised. Amaryllis can be readily raised from seeds, which should be sown as soon as ripe and grown on freely. The first two winters they must not be dried off in any way. As a rule, bulbs take three years to flower from seed, but some reach that stage earlier than others.

TREATMENT OF BEGONIA GLOIRE DE LORRAINE (*B. G. L.*).—The main essential in the propagating of Begonia Gloire de Lorraine is to obtain good cuttings. It is quite useless to strike the tops of the plants that have flowered, as they will never form satisfactory specimens. In order to obtain the best cuttings, the plants that have flowered should be cut back to within 6 inches of the pot. Then they must be partially rested by being kept rather drier for three weeks or a month. This does not mean that they are to be parched up. When resting a temperature of 50° to 60° will be very suitable. At the expiration of the time mentioned, the plants should be kept warmer, say, 60° to 70°, and given an increased quantity of water. This will lead to the production of short, sturdy shoots from the lower part of the plant, and when these are about 2 inches in length they form good cuttings, which will quickly root if taken off, inserted into pots of sandy soil, and placed in a close propagating-case where there is a gentle bottom-heat. They will also root without the bottom-heat, but will take a little longer to do so. You ask whether it is better to strike them in a close propagating-case or in a box on the staging in order to avoid rust as far as possible. We are not sure that we quite grasp your ideas, as if the box has a pane of glass laid on the top it is virtually a propagating-case. The rust alluded to by you is caused by a very minute insect. Too dry an atmosphere is very favourable to its development, and to keep it in check the plants should be occasionally dipped in a mixture of nicotine, soft soap and water, care being taken not to use it too strong. An occasional vaporising with nicotine will also have the same effect. It may also be noted that this Begonia can be readily propagated from single leaves, by taking them off with the entire leaf-stalk attached, dibbling them into pots, and treating as cuttings of the shoots. Some cultivators prefer leaf cuttings, but the majority like the shoots best. The plants must not be potted too firmly. This particularly applies to the first potting. Throughout the summer the plants should have what is termed an intermediate temperature; that is to say, though fire-heat may be dispensed with, yet the structure must always be kept closer and moister than an ordinary greenhouse. In hot weather the plants are benefited by being syringed; but not in the winter. Old plants may be grown on for the second year if cut back as above recommended. When the new shoots make their appearance, the plants must be shaken nearly clear of the old soil and repotted. A mixture of loam, leaf-mould and sand, with a little bone-meal for the last potting, will suit this Begonia.

KITCHEN GARDEN.

SCAB ON POTATOES (*E. R.*).—Treatment with formalin is the best mode of freeing seed Potatoes from ordinary scab. No remedy is known for black scab or wart disease. The tubers should be put in a loose canvas bag and steeped for two hours in a bath made by mixing 1 lb. of formalin (40 per cent. formaldehyde) in 32 gallons of water. They must be allowed to dry before planting.

CARROT FLY AND OTHER PESTS (*Learner*).—The Carrot fly cannot be killed by watering the soil, but treatment with lime will often do something to check its attack. The thinnings should not be left near the Carrots, and the soil should be made firm about the plants after the operation. Vaporite and Apterite are said to check the attack, as will sprinkling paraffin-damped sand along the rows. The same may be said with regard to the Onion maggot, but autumn-sown Onions rarely suffer. Mildew of Onions is avoided by having well-drained soil, practising rotation of crops, and destroying by fire all refuse of Onions (not digging it in or permitting it to find its way on to the rubbish heap). If mildew should appear, spray the plants with liver of sulphur at the rate of 1 oz. to 3 gallons of water. We always dibble our Onions in, making the soil about them very firm afterwards. Steep the Celery seed in hydrogen peroxide for a couple of hours to kill the spores of the Celery fungus, and spray the plants with Bordeaux mixture from May onwards.

HOW TO PLANT ASPARAGUS (*Reader*).—As you do not appear to have added manure when double digging the plot, you should fork it over again when dry, adding freely half-decayed stable manure underneath the top spit. Leave the surface soil quite rough; the wind and rain will pulverise and render it quite friable by planting-time in the spring. Your bed 6 feet wide would accommodate three rows quite easily; two rows only is a waste of space. Down the centre of the bed shovel out a trench 4 inches deep and 1 foot wide. Assuming the two year old roots are 2 inches deep in the crown when they are placed flat in the trench, 15 inches apart, spreading out the roots, the crowns will be covered 2 inches deep with the soil returned. Open a second trench on each side 18 inches from the centre of the bed, and plant the roots as advised. When they commence to grow, should the weather be hot and dry, a 2-inch mulch of half-decayed horse-manure, decayed leaves or vegetable refuse, to which is added old potting soil and wood-ashes, will aid in conserving the moisture in the bed and save the trouble of watering. Should, however, a long spell of drought occur, water should be freely given, especially as the subsoil is sandstone, and the plants sprinkled overhead nightly. Giant French is a good variety.

THE GARDEN.

No. 2319.—Vol. LXXX.

APRIL 29, 1916.

NOTES OF THE WEEK

Narcissus Seagull.—The illustration does not flatter this charming variety. For three or four years it has been left undisturbed, and each spring it has flowered profusely. It belongs to the Barri or short-cupped section, the perianth being pure white, and the cup canary yellow, while the foliage is remarkable for its blue-green tint. Altogether it is splendid for cutting. It was one of the first varieties sent out by the Rev. G. H. Engleheart, who, by the way, always selects such delightful names for his Daffodils.

Pink Grape Hyacinths.—Almost everyone admires the pretty conical flower-heads of the Grape Hyacinths. Few, however, are aware that there are pink varieties. There is a pretty variety of *Muscari botryoides* with the flowers of white, charmingly flushed with rose. It is called *M. botryoides carneum*. There is also a deep pink variety of *M. racemosum*, which is quite a beauty, but very difficult to obtain. *M. Masseyanum* is one of the latest recruits to our gardens, and is as yet a little high in price. It is a good one, however, with flowers of a nice rose or pink.

Meconopsis × decora. At a recent meeting of the Scientific Committee of the Royal Horticultural Society, Mr. T. Hay of Greenwich Park sent a plant of *Meconopsis × decora* with white flowers. Several plants had been raised, some having white, some blue flowers, and after being cut back they freely produced flowers again. No seed was produced. The plants were raised from seeds obtained from India and from the Botanic Gardens, Edinburgh, under the name of *M. Wallichii*, but those raised proved to be something different. Sir D. Prain named it *M. decora* (see *Kew Bulletin*, No. 4, 1915), but subsequently came to the conclusion that it was a hybrid. It has appeared in several gardens, but whether the seed in this case came from India or from Edinburgh cannot be stated.

Great Red Cross Sale of Plants, &c.—Fellows of the Royal Horticultural Society and others are

appealed to for plants and bulbs, including Orchids; horticultural books, paintings, photographs and Japanese prints, cut flowers and bouquets, to be sold by auction on June 28 and 29 to help the funds of the Red Cross Society. Offers should reach the Royal Horticultural Society's Secretary, Vincent Square, Westminster, S.W., on or before May 27, in order that they may be duly entered in the catalogue, and the objects themselves must reach Vincent Square early in the day on Tuesday, June 27. Cut flowers will only be sold on the Thursday, and must be brought on the same morning before 10 a.m. Plants growing in the ground will, of course, not be brought at all, but

A Souvenir Catalogue.—As the catalogue will in itself be an interesting and valuable souvenir of a unique occasion, it is suggested that all Fellows and others interested in the object of the sale should secure one or more copies of the catalogue, whether they are able to attend the sale or not. Any unable to attend may send orders to the auctioneers to bid for them. The catalogue may be obtained from Vincent Square, or from the auctioneers, Messrs. Prothero and Morris, 68, Cheapside, E.C., at a price of 2s. 6d., post free. It will also be on sale at the door. Each catalogue will admit one person to the sale. Admission by catalogue only. Profits arising from the catalogue

will be added to the proceeds of the sale.

Necessity is the Mother of Invention, or How to Grow Medicinal Herbs Without any Land: A True Tale.—A partner in one of the very largest drug firms in the British Isles recently told us the following tale, which, as there is so much interest taken in herb-growing just at present, seems eminently seasonable. For a considerable number of years a poorly dressed man used to offer the firm Hemlock seed at half the price generally asked. At last the partner questioned him as to how he managed to sell it so cheaply. "It is in this way," he said. "Early in the year I fill my pockets with



NARCISSUS SEAGULL, FINE FOR CUTTING AND A GOOD GARDEN FLOWER.

the donors of such will undertake to lift them at the proper season and pack and despatch them to the purchaser, who will himself defray the cost of carriage. Donors are particularly requested to give beforehand a short account of the plants they are going to send (especially if of any marked interest), for publication in the catalogue. Paintings of plants not in flower will, when available, be exhibited by the auctioneer. Donors are requested to lend such paintings, which will be returned if the name and address of the lender is written on the back of them. Donors should understand the importance of only sending things of some real value.

seed and then go out into the country, and whenever I come across a good wide hedgerow, I sow the seed all along it. Later in the year, when the plants have grown and seed has been formed, I again visit the hedges and call the attention of the farmers to the weed, at the same time offering to cut it and take it away at a shilling a hedge. So you see I get my land for nothing, and in addition get paid for cutting my own harvest."

* * * Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

The Dwarf Anchusa.—The flower-spikes of this plant are fast lengthening and the lovely Forget-me-not blue flowers almost daily unfolding. The first flowers—just a few—actually opened in January, as it was so mild; but since then they have had to “lie low” owing to the spell of rigorous weather we have had. For though quite hardy as regards living out through the winter, yet the first young leaves and now and then an occasional spike appear to resent hard frosts. A box, basket or some evergreen branches will, however, meet this difficulty, which is worth while doing if only on account of the plant's early flowering tendency. We grow it in the rock garden, but, judging from its habit and hardihood, it would be equally at home in the flower border. It is some-

Specularia: “Sed nibilo minus specularibus integri debunt, ut etiam frigoribus severis diebus to-to producantur ad solem.” Macrobius, who lived probably about the fifth century, refers to the indulgence which demands “Snow in Summer and Roses in Winter.” But even the Romans were not the first to produce such luxuries. Florus, the Roman historian, speaks of the refinements of civilisation enjoyed by Antiochus the Great among which were Roses in winter. A full discussion of this matter will be found in Charles Daubeney's “Lectures on Roman Husbandry” (1857) and in a paper by Sir Joseph Banks in Vol. I. of the Transactions of the Royal Horticultural Society.—E. A. BUNYARD.

Primula Juliae not Flowering.—While there are several types of the charming little Primula Juliae, some of which flower much more freely than others, there appear to be certain conditions of culture under which all of these may fail to bloom satisfactorily. This has been brought

of the day and the other fully exposed to the sun, though growing within about 18 inches of each other. The one exposed to the sun flowered much more freely than the other.—Ed.]

Scarlet Geraniums.—I am very fond of scarlet Geraniums, although I suppose it is very Victorian, according to modern taste, to say so. I take a delight in looking out of my “taxi” at the Paul Crampels, in all their blaze of brilliance, whenever in summer-time, I pass the great Queen's monument in front of Buckingham Palace. Imagine then, my pleasure to find someone with a fellow feeling who could sing of them as Isidore G. Ascher does in one of his “One Hundred and Five Sonnets” (B. H. Blackwell, Oxford, 1912). He addresses them as

“Children of ardent suns and lavish light”;
and in their “crimson blaze” he sees

“the vivid glance

Of love, whose course is hardly yet begun,
When young hearts beat and maddening
pulses dance!”

Not for the first time has the pure, unadulterated magnificence of brilliant and flaming colour been in man's mind the silent spokesman of early savage love. Selim and Fatima understood it quite well at Constantinople when a gorgeous Tulip passed between them. The meaning was well understood in Persia and the Near East. But I did not intend to write all this when I took up my pen. It was to be but a sentence or two by way of preface to another sonnet on “A Bulb,” which was the unconscious cause of my being in possession of the tiny volume. A friend chanced to come across it, and it so charmed him that he passed it on to me. I have read it, and it has so charmed me that I, in turn, pass it on to others.

A BULB.

“I placed it in the earth—this bulb of mine—
And from its narrow prison-house of night,
It struggled forth to reach the air and light;
And hidden in its heart, of fair design,
A lovely secret wondrous to define,
Was wrought and garbed in purity of white,
And as it rose and blossomed to the sight,
Its absolute perfection seemed divine!
O cumbrous flesh beneath the sleeping soul!
Hedged in obscurity and loneliness,
Planted in darkness on this sorrowing earth,
Struggling to reach an unknown, unseen goal,
Shall Heavenly light and beauty greet and
bless

The silent mystery of your waking birth?”

Daffodils “bowing and swaying to the giddy breeze”; Roses “the very acme of things pure and sweet”; Crocuses which “woo the nipping air”; White Jasmine “spotless as dreams of love in youthful eye”; Violets and Ramblers keep company with the scarlet Geraniums and give the little book much interest for the lover of flowers.—JOSEPH JACOB.

Firming the Soil after Seed-Sowing.—The note by “Anne Amateur” is very interesting, and no doubt following Dame Nature is good advice up to a point—that is to say, in the selection of a situation or a soil for a plant; but the highest cultivation of plants will not follow by this simple treatment. In fact, this is where the art of gardening comes in; it is an extension of this rule. After all, mankind is given a higher intelligence by which he is expected to greatly improve on Nature's methods; he makes experiments, mixes up different composts, tries many devices which



PRIMULA JULIAE OF A FREE-FLOWERING STOCK.

what of a bushy nature, and the loosely formed racemes grow from 1 foot to 18 inches high. Its specific name is Anchusa myosotidiflora, and seen out of flower a casual observer might easily mistake it for an old rootstock of Hollyhock. I do not know whether it is want of popularity, but this dwarf Anchusa is not catalogued by many nurserymen.—C. TURNER.

Forced Roses in Roman Days.—While making no claim to classical scholarship, I can perhaps aid the querist on this subject by a few references which will put him in the way of further information. It is reported by Martial that Roses were brought from Egypt in winter and also forced in Rome. The Romans knew all about flue heating—witness their baths; and the use of “Specularia,” probably a kind of talc, makes an easy transition to the construction of green-houses. Columella in his eleventh book speaks of forced Cucumbers grown in baskets and wheeled out into a warm corner by day and covered with

home to me by seeing some plants in a good garden the other day. They had been planted in a moraine, with some rather good compost below the gravel, and not a plant had bloomed well, although one, at least, of the forms was from a free-blooming stock not known to fail in ordinary circumstances. It appeared to me that all of these plants were suffering from overfeeding. My own, which rise but little above the surface, flowered very freely in different positions—moraine, bog and dry soil. I think this note may be of some service to those who have been disappointed with P. Juliae, which many of us have found so satisfactory. I have always advocated P. Juliae in its free-flowering form, so that I have been surprised and annoyed to find that even it will not prove satisfactory under every condition likely to suit other Primulas.—S. ARNOTT, Dumfries. [In the rock garden at Wisley we have noticed two plants of this Primula one being shaded the greater part

Nature never bothers with in her rough and ready methods; so I am afraid "Anne Amateur's" methods would not give more than useful household vegetables. Firming the soil after sowing seed is, I think, desirable, for several reasons, one of these being that the plant roots more firmly in the soil, and the seed in bursting does not bring the root to the surface; secondly, the firm, smooth bed attracts the sun-heat and retains it; and although I am an admirer of Dame Nature, yet I prefer her educated by the art of gardening; in fact, I prefer the finished article. "This is an art which does not mend Nature, change it rather, but the art itself is Nature." Therefore anything done which improves cultivation is desirable, and firm potting and planting is one of these things, as it leads to more energetic rootlets and gives much more material for them to work in, thus making a stronger and more robust plant.—WALTER SMYTH, *Holywood, County Down*.

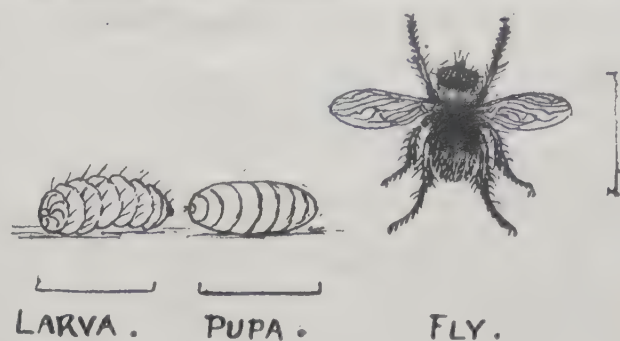
Narcissus triandrus albus in the Rock Garden.

Of the many charming dwarf Daffodils, there is none more precious for the rock garden than Angel's Tears—*Narcissus triandrus albus*, to give it its full title. Moreover, it has an additional attraction in wartime, and that is its cheapness. The bulbs are very small and should be grouped in one clump rather than scattered about promiscuously. A sunny situation is advisable so that the bulbs may be thoroughly ripened after the foliage has died down. It does not seem to be

fastidious as regards soil, providing the drainage is really good. A gritty loam suits it admirably, with a surfacing of coarse gravel chips to prevent the lovely white flowers being bespattered with soil in stormy weather. The first year after planting, the Angel's Tears often produce only one or two flowers on each stem; but when well established I have often had them bearing five, six, and even eight flowers on one stalk. They produce seed abundantly, and self-sown seedlings crop up all round the old plants like tiny Onions. Crossed with some of the large trumpet Daffodils, *N. triandrus albus* has given us a number of most exquisite seedlings, and for this purpose alone it is worthy of every care. *N. triandrus calathinus* is even more valuable for hybridising purposes, but is too expensive for most of us to grow in any quantity. I regard Angel's Tears as the most indispensable of all rock garden bulbs.—N. G. HADDEN.

Narcissus Flies.—*Merodon equestris*.—Since sending you my note on *Merodon equestris*, which appeared in your issue of April 1, I have come to the conclusion that probably what I found in the neck of the bulb was the pupa, and it therefore appears to me that probably the pupation takes place in the neck of the bulb when the larva has eaten all he can get. *Enmerus strigatus*.—I never thought to rejoice on finding *Merodon equestris*, but on April 1 (All Fools' Day!) I formed the opinion that if an affected bulb is light and found to contain *Merodon* (as

I put it now, "to have been *Merodon*"), it is better than finding it affected with *Enmerus*, both as regards the particular bulb and the fact that *Enmerus* is by reason of its habits, I think, far more to be feared than *Merodon*. I only made acquaintance with *Enmerus* last August. I then found it between the scales of what appeared to be diseased bulbs. This first week in April I lifted some bulbs which had not thrown up healthy-looking foliage, and I found the outside scales brown in colour, very wet and decaying, and after stripping off two or three layers I noticed some minute white spots on the next scale. They suggested to my mind that they might be the spores of some fungoid growth, and I thought I would examine them under a microscope. When I got a pocket lens on the white spots, lo and



THE NARCISSUS FLY (*MERODON EQUESTRIS*) WITH LARVA AND PUPA.

behold! they were minute white transparent grubs and, I assume, *Enmerus strigatus*.

Under the lens I could see two dark internal marks in the grubs, such as I had seen in the larger grubs I found in August. Having thus accustomed my eyes to the infantile enemy, I found that I could detect him easily in subsequent bulbs I lifted. In most cases there were the same symptoms of a diseased bulb, the outside scales brown, the main flower growth apparently died off as if frost-bitten, the next foliage either very poor or died off, and the foundation of the growth brown, with the brown colour going down into the bulb. I found the small grubs in the neck and also at the base or lower part of the bulb, and in one case in the brown decayed part of the base. The presence of *Enmerus*, according to my present experience, seems to me to be in conjunction with decay. It occurs to me whether the grub carries a secretion which is capable of rotting the scales and base of the bulb, and so provide suitable food for itself. This is only a mere surmise, mentioned for the purpose of putting others on the *qui vive* to find evidence to confirm or refute. Mr. J. C. F. Fryer very wisely recommends the destruction of all bulbs affected with *Enmerus*, and my short experience, having regard to the minuteness of the grubs, would confirm such advice as good in regard to bulbs of well-established varieties; but what about a bulb that has cost you £5 and which still shows likelihood of making good if the grubs are got rid of? To put it in the fire goes somewhat against the grain! In such a case, after discovering the minute white dots and identifying them, I am experimenting on three lines: (1) Stripping off the scales down to second ones, minutely inspecting the bulb under the lens, and then replanting loosely with a view to further examination. (2) Stripping the bulb and putting it in water, where I propose to keep it for several days. (3) Immersing the bulb in hot water kept at 110° Fahr. for an hour. I know that stripped bulbs will grow, as I stripped several last autumn, and they are growing well now. I venture, therefore, to suggest to growers who have valuable bulbs, to lift them at once if they show the slightest sign of not being in vigorous growth, and if found not to have *Merodon*, but to be diseased, to examine them under a lens for *Enmerus*.—C. LEMESLE ADAMS.

FORTHCOMING EVENTS.

May 2.—Royal Horticultural Society's Meeting and Exhibition, also National Auricula Society's (Southern Section) Show, at Vincent Square, Westminster. Scottish Horticultural Association's Meeting.

May 5.—Linnean Society's Meeting.



NARCISSUS TRIANDRUS CALATHINUS IN DEMAND FOR HYBRIDISING.

THE POLLINATION OF PEAR FLOWERS

By F. J. CHITTENDEN, F.L.S.

THE time which elapses between the flowering of the earliest Pears and the latest is a good deal shorter, as a rule, than that over which the flowering of Apples is spread. The earliest varieties are rarely out of flower before the latest, growing in a similar position, are well forward, but in some seasons a cold spell after the earliest varieties are in full flower may delay the flowering of the latest. This may result in the failure of both varieties to fruit, and it is important from the grower's point of view to have more than one variety in flower at the same time and near one another.

Except for minor variations in size and tint of petals and other parts of the flower, and in

The process of fertilisation is really less simple than it seems, for, strangely enough, the pollen of, say, Doyenné d'Alençon is not capable of causing the production of seeds in that variety. That is, if, as may easily happen, the pollen finds its way to the stigma of the same or another flower in that variety, no result follows; the variety is self-sterile; why is unknown. Only when pollen is brought from another variety and placed upon the stigma of Doyenné d'Alençon are seed and fruit produced.

On the other hand, several varieties fruit without seeds being produced when no other pollen but their own has access to their stigmata. This is the case in the variety Conference, but such fruits

obtain a definite answer to this question is by no means easy, nor is it easy to ascertain whether a variety is entirely self-sterile. Negative evidence is never altogether satisfactory, and although a great deal of experimental work has been done at the Royal Horticultural Society's gardens at Wisley and elsewhere, it is probable that many varieties at present regarded as self-sterile will prove to be more or less self-fertile.

The evidence we have, the result of experimenting with many thousands of flowers, points to the desirability of planting two varieties which flower at approximately the same time, close together. Whether the pollen of any variety will induce fertility in every other is a question to which we have, as yet, no definite answer; but it seems probable that it will in most other varieties, provided they flower at about the same time.

We may group the following well-known Pears among the earliest in flower: Doyenné d'Alençon, Doyenné Boussoch, Knight's Monarch, Doyenné d'Été, Jargonelle, Easter Beurré, Beurré Hardy, Beurré Diel, Thompson's and Conference. Brown Beurré, Winter Nelis, Beurré Superfin, Duchesse d'Angoulême, Souvenir du Congrès, Colmar d'Été, Charles Ernest, Durondeau, Beurré Clairgeau, Louise Bonne of Jersey, Clapp's Favourite, Emile d'Heyst, Catillac, Fertility and Josephine de Malines may be called midseason flowerers; while among the latest are Hessel, Williams' Bon Chrétien, Beurré Bosc, Marie Louise, Doyenné du Comice and Pitmaston. A fuller list is given in the Journal of the Royal Horticultural Society, Vol. XXXIX., pages 370 and 371, which may serve not only as a guide to the varieties which it is well to plant near one another, but also as to the planting of Pears for successional flowering as ornamental trees, and few trees are more beautiful on a lawn than well-selected, well-trained pyramid Pears in flower and autumn foliage.

Where it is impossible to grow more than one Pear tree, two courses are open. One is to beg a flowering branch of another variety when the tree is in flower; the other and more satisfactory way is to graft in the branch of another variety which flowers at the same time.

There still remains the question of the carriage of the pollen from the flowers of one variety to those of another. This may, of course, where only a small number of trees are concerned, be done on a dry day by means of a rabbit's tail on a stick; but if bees can be kept, they will save much time and trouble.

Pear flowers have a somewhat fishy odour, like those of Hawthorn, and consequently attract a good many two-winged flies, which are usually more abundant in the Pear flowering season than are any but the very useful humble and other wild bees, and these, too, do much to carry pollen from one tree to another. The wind cannot be depended upon to carry the sticky pollen for more than a foot or 2 feet.



EARLY PEARS. IN FLOWER, JARGONELLE, EASTER BEURRE AND LOUISE BONNE OF JERSEY.

length of flower-stalk and number of flowers in a cluster, the structure of the Pear inflorescence is the same for all varieties. These minor variations make considerable differences in the general appearance of the trees when in bloom. For instance, the short-stalked, close clusters of small flowers of Beurré d'Anjou, with their creamy tint, contrast with the long-stalked, floppy clusters of large white flowers of Jargonelle and with the splendid vigorous appearance of the fine flowers of Pitmaston Duchess. The dark anthers of Williams' Bon Chrétien give a distinct appearance to the close clusters of that variety, as does the deep yellow pollen of Doyenné du Comice, and so on. In spite, however, of these variations, in essentials the structure of the flowers of the different varieties is the same.

are always narrower in proportion to their length than are those of the same variety which contain seeds. Varieties which fruit without the intervention of foreign pollen are said to be self-fertile, and may be expected to fruit (provided no other factor interferes with the fruiting, such as bad weather, fungi, insects, insufficient ripening, bad pruning, youth and so on) when planted with no other variety near them. Among them may be included Conference (already mentioned), Durondeau, Pitmaston Duchess, Hacon's Incomparable, Beurré Dumont, Doyenné Boussoch, Marguerite Marillat, Petite Marguerite, Président d'Osmonville and Williams' Bon Chrétien. It is, however, doubtful whether so many fruits are set even in these varieties when pollen from another variety does not reach the stigmata. To

DAFFODIL NOTES

BY THE REV. JOSEPH JACON

Fusarium and Wisley.—It fell to my lot at the Daffodil committee meeting on the 17th inst. to perform the pleasing duty of proposing a vote of thanks to the Council for having so readily promised to undertake the investigation of Fusarium at Wisley. Partly owing to the depletion of the staff by war exigencies, their mycologist is "full up" with work for the best part of two years, but the Director is doing his best to find a suitable man who could take on the job. Everyone who has the interest of the Daffodil industry at heart must hope that someone capable of undertaking it will soon be found.

It was incidentally mentioned in committee that the Cambridge University School of Agriculture are on the war-path and are about to visit Wisbech, which, as readers know, is one of the great bulb-growing districts of the British Isles. This means a second and independent attack on the fungus. May this deputation be able to say in two years' time, "We came, we saw, we have conquered."

There is, too, it is very probable, a third assault being made on its insidious inroads. At Lisse in Holland there has recently been built a fine large building, which is a sort of school or university for everything connected with bulb growing. Here, it is presumed, Fusarium will be studied; and should this meet the eyes of those who know what is going on there, it would be of considerable interest if they would tell us, through THE GARDEN, what is being done.

What It Takes to Supply a

how.—I recently compiled a list of all the varieties that were staged at London and Birmingham in 1915, in the first and second prize exhibits of all the sections except that devoted to seedlings and new varieties. It will surprise a good many people to be told that there were, in round numbers, 320. It is just as well it is so, for otherwise what will become of the tens and hundreds of novelties which are being turned out of goodness knows how many seed-beds here, there and everywhere? Baths are getting into their stride, as was to be seen on the 17th inst.; and Barrs, Wilson and Chapman are still going very strong. Yes; Wilson *minimus* (for there are at least three Wilsons in our daffodil world: Wilson major, who wrote that charming book of his experiences in Daffodil growing in the Antipodes; Wilson minor, whom everyone is delighted to see again looking the picture of health after his winter in Southern Europe, and who once again provided a feast of good things; and Wilson, the bright little Irishman, who gave that A 1 article in our last Year Book). Yes; my kind friend, if you do not find that Sunday evening wish of yours fulfilled and "Daffodils Heaven," it will not be because none has been made on earth. Well, well! Who knows what

may not be there? Every cross successful, and "G. H. E." and "A Novice" like the prophet's lion and lamb lying down in perfect peace and harmony within the glorified corona of a Dinton Ajax!

Actualities at Vincent Square on April 11. At a Fishmongers' dinner in the City, a stranger guest found himself seated beside a genial-looking, white-haired and rosy-checked old gentleman, with whom he several times tried to enter into conversation. At last the old gentleman turned and said, "Young man, I have come here not for conversation, but to dine." I must begin my descriptions. The most talked of flower in the hall was the large white Leedsii called Mistral, on Mr. A. M. Wilson's interesting stand. It

Mr. Wilson had fine vases of *Crocus*, *Marshallia* and *Gadfly* on his top tier. The last named has some very rich deep red in the outer part of its rather wide and shallow cup, and is well described in his list as a "very striking flower." *Marshallia* was as charming as ever. It might be called a whitewashed understudy of Robespierre, that super-magnificent villain. Two flowers in this collection received awards for show—*Palermo*, a pale yellow perianth and widely expanded orange red cupped bloom; and *Ozan*, a pale bicolor incomparabilis, which in the 2A Class holds an analogous position to that of *Conqueror* in the bicolor trumpets (1c). The flower, that of all others appealed to me in Mr. Wilson's group was the exquisite

rich yellow, short trumpet *Ajax Cranbourne*. If the two blooms staged were a fair sample of what the plant can do, it will be heard of at shows for a long time to come. In texture, in shapeliness and in deep rich colouring it stood out among all the numbered and named beauties in this select collection. Take a *King Alfred*, cut off its perianth and the lower part of its trumpet, place the remainder on an enlarged *Tenby* perianth of equally deep colouring and with a diameter of 4 inches, and you have *Cranbourne*.

Messrs. R. H. Bath had some splendid blooms on their stand. The gem of their whole collection was the vase of four blooms of *White Knight*. No white, including Mrs. E. Krelage and *White Emperor*, has anything like the exquisite refinement of this old stager. It is still supreme when well grown, and I am more than glad to see that it has got a home it likes at Bath's Floral Farms. No show person should be without it in his collection.

Messrs. Herbert Chapman, Limited, had several good yellow *Ajaxes*, one of which, *Dominion*, was quite early in the day annexed by Mr. Leak—no mean pat on the back for a flower to get, I can assure you. The big bunches of *Shrove* looked very nice, but before the man in the street can use it in such a profuse manner, it will have to come down in price. "Everything comes to him who waits." I am waiting. Barrs, in the reign of Peter the Second, are certainly keeping up their old reputation. Space compels me to hold over my

remarks on some of their cynosures till my next notes. Before I close I have only room to congratulate my friend Mr. F. Barchard on his jolly little rock plant, *Poetry*, which deservedly received an award of merit. If I mistake not, it is the first time he has placed anything before the committee. Those who know the charm of *Dawn*, and can picture in their mind's eye a somewhat smaller and more symmetrical bloom, will have a good idea of what this beautiful little variety is like. The two pots gave one the impression of its being a good doer. All the plants looked the picture of health. I have done. I trust I have done enough dining without too much talking.



THE LARGE WHITE LEEDSII MISTRAL.

measured $4\frac{1}{2}$ inches across and had wide, overlapping perianth segments, the outer three perfectly flat and the inner three somewhat undulating. The cup was on the small side; in fact, this was the "fly in the ointment." I heard the most conflicting opinions expressed about it. Some gazed in wondrous awe and wanted to annex it. "How much?" "Twenty pounds." Others said, "More of a curiosity than a beauty." A great horticulturist, arboriculturist and breeder of sheep came along, and after delivering himself of the wise remark, "Size is the curse of horticulture," was attracted by it and I think would like to have given it a trial. The best of men are generally illogical

NOTES FROM MYDDELTON HOUSE GARDEN

BY E. A. BOWLES, M.A., F.L.S.

IT is no light matter now, in mid-April, to choose the plant most fitting for an honoured place in the pages of THE GARDEN. Every way I look the beds are full of claimants—*Sanguinaria canadensis* is at its best, and a clump a foot wide, with scores of flowers widely open in the sunlight, is as good a sight as the garden gives at any time of year. The flowers have a look of a very superior *Anemone*; but, of course, belong to the Poppy family, and it is a pity so few of their relations take after them in the substance of their petals. One is so accustomed to connect Poppies and their kin with petals thin as crumpled silk that the Blood Root's Magnolia-like texture of flower suggests another family. No other flower of the season is so purely and radiantly white as these open flowers and those of *Magnolia stellata*.

Different forms of Wood Anemones are opening every day, and each has its own charms that I should like to record. The semi-double *A. ranunculoides* is charming, and half as large again as the ordinary form. It has four ranks of bright yellow sepals round a neat and regular circle of stamens, and in the centre of all a bright green boss of carpels as perfect as though the flower had not taken to doubling. It has much brighter green leaves than the ordinary small-flowered type generally found in gardens, and each is divided into three long lobes, that are much less cut and subdivided than in the older form. In this they resemble a larger form I have received from two or three friends, and which I believe is found on Monte Baldo and in other Italian localities, whereas the smaller form, with bronzed leaves, is a more Northern variety.

Erythronium Hartwegii is exquisite in a shady border among choice Ferns. Its leaves are beautifully marbled with many shades of green and burnt sienna, and the stems and buds are also tinted with various depths of orange and red-brown. Just now only the terminal flowers are open, delicate cream-coloured stars with soft orange eyes, and stand well above the half-dozen rich brown buds springing from the lower portion of the stem. When fully open the flowers reflex like a *Cyclamen*, and have such a look of good breeding and rarity that one marvels they should grow so strongly. Here I have found it one of the easiest to manage of the American forms.

Prunus subhirtella also cries aloud for a sitting, for the portrait of its stiff, upright-flowered form as shown in the *Botanical Magazine* (t. 7508), and the much reduced outline drawing in Bean's "Trees and Shrubs," give no idea of the grace and beauty of the living shrub. Mine is now 7 feet high, has slender, Birch-like twigs, and now, before the leaves make any show, it is covered with pendent blossoms. These are Cherry blossoms made into a star without becoming spidery, and therefore the perfection of grace. They are

white, tinted throughout with rose colour, but especially on the outside of the tips of the petals, and thus the buds are almost crimson. The flower-stalk, long narrow ovary and sepals are of a rich crimson-brown, brighter than brown-

THE CANADIAN BLOOD ROOT (*Sanguinaria canadensis*).

madder, and give such a distinct touch of colour to the whole and emphasise the drawing so beautifully that if I could have done a coloured drawing instead of a pencil sketch for these notes, *Prunus subhirtella* could not have been denied. It is possibly the wild form, or some very near relation, of the pretty weeping *P. pendula* from Japan, which is also in full flower now.

Daffodils have recovered their snubbing of the snows and blizzards in a wonderfully forgiving spirit, and are very tempting as sitters, but we get such good photographic portraits of the newer kinds nowadays. I turn from them to linger over certain dainty little treasures that are fitter for nooks in the rock garden. Most of these are hybrids with cyclamineus or triandrus blood in them, and have been sent to me by kind friends who raised them and knew they were just the kinds I love most.

The only one of the set I have bought is Beryl, a very lovely thing, but more than twice as large as the largest of the gifts. A stiff, clear-cut, orange cup, and soft yellow reflexing perianth, are common to Beryl and my two favourite smaller ones. However,



ANEMONE RANUNCULOIDES, THE SMALLER FORM WITH BRIGHT YELLOW FLOWERS AND BRONZED LEAVES.

when I saw *Fritillaria obliqua* in full flower by the side of one of these small Daffodils, I gathered it instead, and now I have finished drawing it, am happier again, but for the last hour have felt sorry I chose such a difficult subject. Each flower is in certain lights two shades of black. Outside it has the bloom of a ripe Sloe, and so looks almost blue when well lighted; while the interior is either the blackest of red-purple or the most purple of blacks, according to the light or shade falling on it. It is nowhere really black, but, for all that, as seen growing in the garden it looks as black as anyone could wish a flower to be, and is so distinct that, once seen, it is not likely to be forgotten. Unfortunately it is not a common plant, and I do not know of any nurseryman's list that contains it. I first saw it growing in the south border in front of the long stone wall in the late Canon Ellacombe's wonderful garden at Bitton. It has grown well there for many years, but was very slow of increase and set no seed, so I had to remain content with admiring its beauty year after year when the three plants of the little clump were in flower. Then one autumn I was staying at Ludgvan Rectory, and talking over good plants with my host, Mr. Arthur Boscawen, we came to mention *Fritillaria obliqua*, and I said how much I wished I could get a bulb of it. He answered that it did well there and he had replanted his clumps a few days before, and in his generous way, lest we should forget it, he went out into the garden, at ten o'clock at night, and by the light of a candle dug me up a couple of roots of the coveted treasure. They still grow and flower to remind me of his kindness, and have lately had enough companions added to them to form a good clump, part of a rich collection of rare Fritillaries given to me by the only man in England who could give away such a number of good kinds, Mr. Elwes. Thanks to these two good and generous gardeners (all really good gardeners are generous, of course) I can gather two sprays of the Violet-flowered Fritillary, as the *Botanical Magazine* called it in 1806, without destroying the beauty of my clump. I have discovered while drawing it that, in addition to its other charms, it possesses a delicious fragrance, like that of a Maiden's Blush Rose, which strikes me as very exceptional for a flower so dark in colour, most of which possess offensive odours, if any.

Directly I turn to my books to try to give an authentic account of this beautiful plant's native home, I find a fresh crop of difficulties, for opinions differ so widely about it that the "Index Kewensis" enters it as a true species from Greece, while Baker makes it to be a robust garden form of the wide-leaved *F. tulipifolia* from the Caucasus; and Sir Joseph Hooker, in the *Botanical Magazine* for 1872, says *F. obliqua* has nothing to do with it, and is probably a form of *F. persica*.

Now my black but comely favourite *obliqua*, as you may see by my sketch, has its stigma divided into three fairly long arms, and the *Botanical Magazine* plate 5969 of *F. tulipifolia* shows a plant with what the accompanying text describes as a "style gradually thickened upwards to the obscurely three-lobed stigma."

Here I must leave its relationship to other Fritillaries until I can spend a day in a good herbarium; but wherever it comes from, *F. obliqua*, with its black bells, looking more as though made of metal by some Japanese artist than real living flowers, is a beautiful plant for a warm, sheltered border.

RASPBERRY AND BLACK-BERRY HYBRIDS

LOGANBERRY SEEDLINGS.

The Phenomenal Berry.—There are several interesting Loganberry seedlings on the market, and I would deal this time with one called the Phenomenal Berry. From some catalogues before me I am told that the Phenomenal Berry is darker and sweeter than the Loganberry, and in another list that it has the flavour of the Raspberry. I have had three plants in my garden for a sufficient time to test it, and in different aspects, and this is what I have found: First, the fruit is a trifle larger, say, an eighth of an inch or a sixteenth of an inch longer than the largest Loganberry, but, on the other hand, it is not nearly so prolific in fruiting. Again, after many tests last summer, it tastes to me more sour than the Loganberry, though tested when really ripe. In contrast to this I see some catalogues say that the Phenomenal Berry is identical with the Newberry (which latter is much sweeter than the Loganberry). It is quite possible some nurserymen have mixed up these two and sent one out under the other's name. There may be some people who think I am quite wrong over the above remarks. In a different part of the country and with a different climate the Phenomenal Berry may bear differently, and I am sure the Editor will not mind if what I have said so stirs readers up that they will also tell of their experiences, as in this way we who are amateurs can find out what a plant is really worth. The Phenomenal Berry ripens with me about three days after the Loganberry.

The Newberry.—This plant, I am told, was introduced by Messrs. Whitelegg and Page of Chislehurst, and in my opinion it is by far the best of the berries on the market. It is said to be a cross of a Loganberry with the Superlative Raspberry. Now, this is an interesting statement,

because, in the history of the Loganberry, Judge Logan has stated that he has never succeeded in crossing the Loganberry with either of its parents (Dewberry x Raspberry), nor with seedling crosses of the Dewberry, from which it was raised. The only appreciable difference between the Newberry and the Loganberry is to be found where it is needed, that is, in the fruit, which has a much greater sweetness and tastes much



FRITILLARIA OBLIQUA,
THE VIOLET-FLOWERED
FRITILLARY.

(From a drawing by E. A.
Bowles.)

more like a Raspberry, though in every other respect, both as to size of fruit, length of shoots and time of fruiting, it is like the Loganberry. As a hybridist one can tell from the foliage also that it is a real cross with a Raspberry, because the foliage is a little more after a Raspberry leaf than is that of the Loganberry. I noticed also that there is another good point about it, and that is that the fruit does not go so mouldy as the Loganberry in showery weather.

The catalogue does not state concerning the Loganberry that should a shower of rain come when the fruit is nearly ripe, it will be found that when the fruit is dry again one in every ten fruits will have gone mouldy. The Newberry is much better in this respect, though I do not say that it is altogether free from it. I have often wondered where this mouldiness originates from, for if (as it has been previously discussed in *THE GARDEN*) the Loganberry is a descendant from a Dewberry with a Raspberry, neither of these fruits shows such a tendency to go mouldy as its progeny.

Before I close I cannot help saying to all who are lovers of fruit that they should have a bottling apparatus. I can strongly recommend that of Messrs. Fowler Lee of Reading. We have had one of theirs for years. The season of the fruit is so short, and many of these berries ripen almost at the same time; also one may be away from home when they ripen, and what, then, is the use of having so many of these berries in the garden? Well, the bottling apparatus supplies the answer. We fill the bottles with the fruit, fill up with water, adjust a rubber ring in the groove in the neck of the bottle, fix the cover, put on a clip, place the bottles in a sort of large saucepan with a thermometer provided for the purpose, and deposit it on the kitchen range or gas ring, and in a little over two hours there will be seven or ten bottles (according to the size of the apparatus bought) ready to store for winter use. Newberries mixed with Apples are delicious in a tart. W. F. M. COPELAND.

SPRING SHOW OF THE NATIONAL ROSE SOCIETY

NEW ROSES.

PERHAPS one could hardly expect a very good display of novelties considering the sunless days we have had this spring, and it must be admitted there was nothing startling on view.

Unless a novelty is exhibited at the Spring Show for its special value as an indoor Rose, we feel more convinced than ever that awards should not be made, or, if made, they should be conditional on being ratified at the Summer Show. So many Roses may be fine as grown under glass, but totally useless for our outdoor climate. Messrs. Alex. Dickson and Sons obtained a gold medal for

Mrs. Bryce Allen (H.T.), which gave rise to some comment and criticism afterwards. There is this to be said: When the judges view them the blooms may be bright and good, but the exposure to warm air, and taking into consideration their long journey in many cases, they quickly lose their beauty. Mrs. Bryce Allen is deliciously fragrant, and it possesses a beautiful form and fulness, with a length of stem that will make it a grand indoor flower for cutting. The colour is a very lively carmine rose, and we believe

this variety will be a most valuable addition to our collection.

W. C. Gaunt (H.T.) received an award of merit, and was also exhibited by Messrs. Alex. Dickson and Sons. It seems to come midway in colour between Richmond and Hugh Dickson, but we can quite believe that outdoors this Rose would be far richer in colour than either. The blooms are borne on rigid stems, and the plant is not too tall in habit, so that it will make a perfect bedder. The flowers are very shapely, with handsome guard petals.

Clarice Goodacre (H.T.) was passed on this occasion, but we can quite imagine it will receive high honours at the Summer Show, for it possesses a most exquisite form. The colour is ivory white, suffused with biscuit chrome, a shading that will intensify outdoors. It is very fragrant, and also



THE NEW GOLD MEDAL ROSE MRS. BRYCE ALLEN.

possesses a fine stem. We believe it will be an exhibition Rose of great merit.

Donald McDonald (H.T.).—Personally, we were attracted to this Rose more than any other staged. It reminds one of a deep Lady Battersea which has a lovely suffusion of orange at the base. The flowers are of exquisite form, medium in size and abundantly produced. A lovely Rose in bud form, and one with a great future. A bunch of

Red Cross (H.T.) showed its wonderful colouring, and will be welcome as a brilliant bedder. All of these varieties were exhibited by Messrs. Alex. Dickson and Sons of Newtownards.

Mr. E. J. Hicks staged a very nice Tea Rose named **Lady Sydney Eardley-Wilmot**. It was like a very pale, almost white Mme. Hoste, and no doubt will be shown better later on.

Messrs. B. R. Cant and Sons were showing their fine novelty

Hon. Mrs. R. C. Grosvenor, and we thought it to be an excellent Rose. The outer petals are porcelain flesh, with an orange yellow centre to the flowers. It will be a grand decorative Rose.

Sallie, Autumn Tints and Augustus Hartmann are now well known, and they will sustain the high reputation of Messrs. B. R. Cant and Sons. This firm also had on view a fine bunch of

Silver Moon (Hybrid Wichuraiana), one of the loveliest of the large-flowered single ramblers that should be in every garden. Its buds are as shapely as those of a Tea Rose, and look like a miniature Mme. Hoste before expanding. It is a most rampant grower. It was raised in America by Dr. Van Fleet. A Rose that attracted much notice was

Mme. Colette Martinet (H.T.), a grand introduction of M. Pernet-Ducher's, and well exhibited by Mr. Walter Easlea of Eastwood. This Rose also won first prize as a table decoration for Mrs. Bide. It is a glorious bit of colour, reminding one of the perfect rich shade of William Allen Richardson in a fine big flower nearly as large as Le Progrès. This is going to be a very popular variety.

PLANTING ALPINES IN SPRING

THE winter is frequently chosen as the most convenient time for forming the rock garden, and with reasonable care planting may be performed with perfect success in the spring.

Where the plants are in pots, few precautions are necessary, as they may be placed in position with the ball of earth intact. If the ball is filled with roots, some of the latter should be disentangled, so that they may obtain a ready hold of the earth. Fill up with soil, making sure that it is well rammed in and firm, yet not solid. A good watering will settle the plant down.

Plants which are not in pots and come without a good deal of soil about the irroots require more careful treatment. Unless the weather should be wet or with heavy showers, the following practice should be observed. Make the

holes large enough to spread out the roots without cramping them, fill in some soil just to cover these, and pour in sufficient water to fill up the hole. After this has drained away, put in the remainder of the soil and then water again. If bright and sunny or there is much wind, such as we often have in April and May, shade the plants for a few days until they can get hold of the soil and draw from it nourishment to maintain them against the loss caused by the drought or drying winds. A flower-pot tilted to one side is a good protection for single plants; but for large clumps an excellent method of shelter by means of canvas stretched on frames may be employed. If hand-lights or cloches are used, these should be shaded. With a little care of this kind the lives of valuable plants may be saved at a critical stage in their establishment.

Dumfries.

S. ARNOTT.

THE SNAKE'S-HEAD FRITILLARY

ABOUT this time last year I awoke one sunny morning to find myself in a strange, but none the less comfortable, bed in the Military Hospital at Oxford. Never can I forget the wild and garden flowers that were brought into the ward that morning. To the accustomed eye there may not have been anything uncommon about them, but they, like the ever-cheerful nurses themselves who cared for the needs of the suffering, brought gladness to the hearts of those who had spent long weeks and months in the war desert of Flanders. The first flowers to catch the eye were those of the wild Fritillary (*Fritillaria Meleagris*), that abound in the meadows around Oxford. These modest flowers recalled to the writer more vividly than ever before Matthew Arnold's exquisite lines:

"I know what white, what purple fritillaries,
The grassy harvest of the river fields
Above by Eynsham, down by Sandford
yields."

It soon became apparent that Fritillaries had many times been employed in the decoration of

the hospital, and my heart sank when I heard the Sister of the ward exclaim: "I hope the Snake's-heads will never be brought into the ward again." Oh! Sister Hamilton-Watts, how could you! But, after all, Fritillaries should be seen growing to be fully appreciated, and other species are so evil-smelling that they are the very last things to bring indoors. Exception, however, must be made to *F. obliqua*, so delightfully portrayed on another page, for it possesses a sweet fragrance which is very uncommon, particularly among flowers of dark metallic hue.

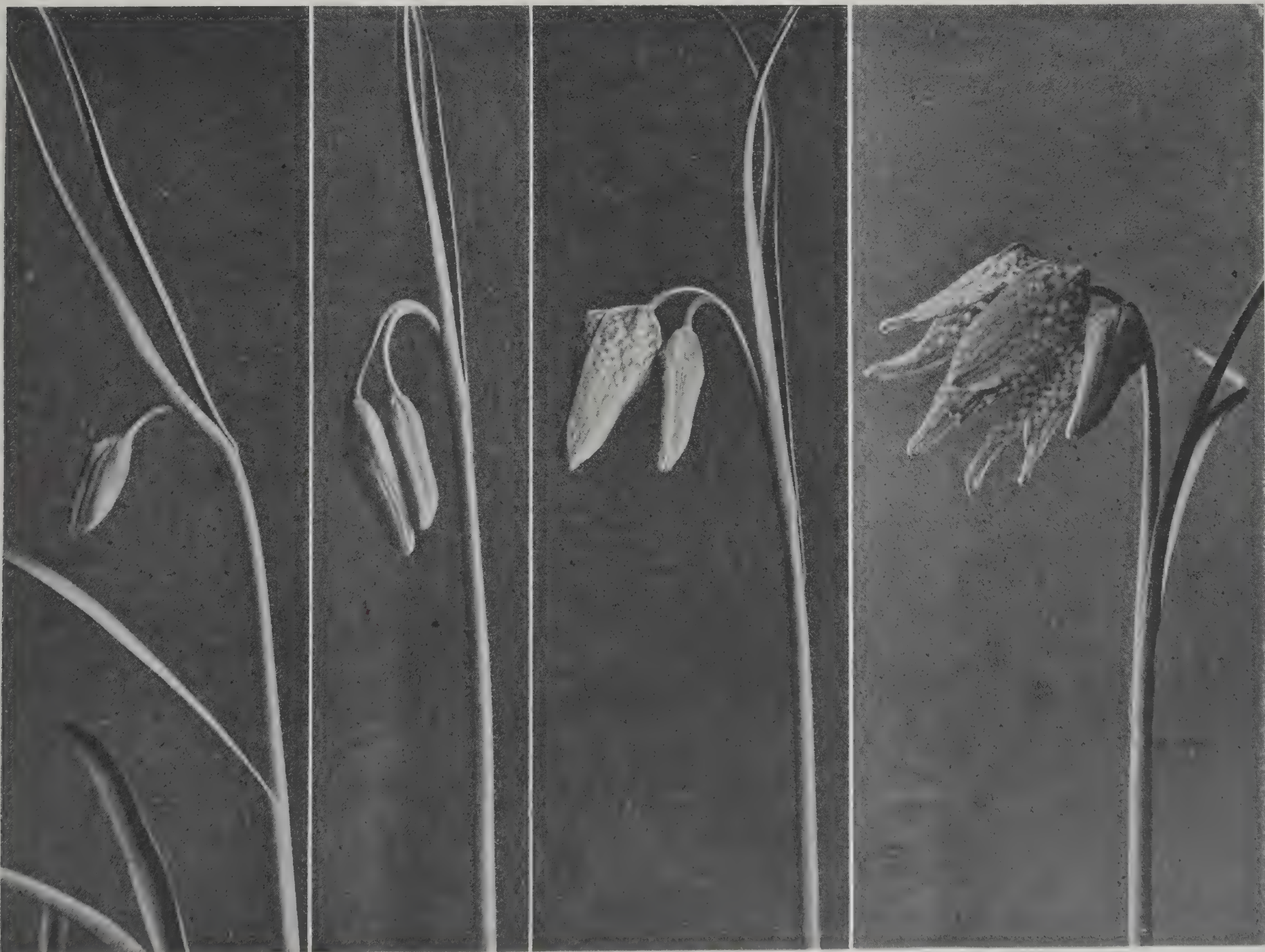
This spring I have watched the development of the Snake's-head Fritillary, from the bud to the full-blown flower, with more than usual interest. Two flowers are usual to an inflorescence, although cultivation may increase the number to five or six, as was demonstrated by Mr. Elwes in his interesting exhibit at the last meeting of the Royal Horticultural Society, with bulbs that had previously been collected from Thames-side meadows.

The accompanying photographs were taken at intervals of three days. At first the two flower-buds appear united, next we see them separating, then the leading bud shows signs of chequered colouring around its square shoulders, and, eventually, we see it expanded. The development is accompanied by a lengthening of the flower-stem,

and, in this case, by a gradual change from a forward incline to a vertically upright position, while the upper pair of leaves at first bend forward, but by gradual stages eventually assume an opposite position.

The manner in which the flower-stalks bend over before the flowers open is a point of interest, for it is Nature's means of protecting the pollen from wind and wet, and the flowers retain this position so long as the pollen is in need of protection. The observations made by Kerner and Oliver regarding the similarity in the fertilisation of *Fritillaria* and *Narcissus* are both interesting and opportune. These two flowers, we are told in the "Natural History of Plants," present simple instances of autogamy.

The flowers open, revealing the stigma stationed in front of the entrance to the receptacle and already mature; while the anthers, closely adherent to the stigma, are still closed. Autogamy for a time is impossible, whereas cross-pollination may be effected through the intervention of wind or insects. In the second half of the flowering period the anthers adjacent to the stigma open, and the stigma is instantly covered with the pollen set free from them. These are matters we may observe for ourselves now that the season of Fritillaries and Daffodils is with us. H. C.



In bud.

The buds separating.

Showing colour.

The flower unfolded.

THE DEVELOPMENT OF THE SNAKE'S-HEAD FRITILLARY.

CROPPING AN ALLOTMENT

THE accompanying plan has been prepared with a view to cropping a 10-rod allotment to the best advantage. In actual practice, however, it will be possible to grow more crops than are shown in the plan; for example, Lettuce plants can often be planted along the edges of paths or on the sides of Celery trenches.

It will be seen that no space is reserved for winter greens, this crop being treated entirely as a succession crop to Peas and early Potatoes. In order to be successful with winter greens treated as above, it is essential that the seedling plants should not be allowed to become starved in the

seed-bed before transplanting between other crops. As soon as the seedlings attain their second leaf they should be transplanted 2 inches apart in a small patch of ground, when they will continue to grow unchecked till they are finally transplanted to their permanent quarters. Furthermore, the intermediate transplanting of seedlings produces an abundance of roots, which enables the plants to become more quickly established when finally planted than would be possible if they were allowed to remain in the seed-bed till required for their permanent quarters.

Broad Beans should be sown as early as possible to enable the plants to become well advanced in growth before the black aphid makes its appearance. The rows should be 2 feet apart, and the

Brussels Sprouts planted between a fortnight before the Beans are gathered. As soon as the pods are gathered, the stems should be removed to allow the light to reach the Brussels Sprouts. If

Celery or Leeks are grown after Peas, the trenches should be prepared as soon as the Spinach and Radishes are gathered. The Celery or Leek plants could be planted in the trenches three weeks before the Peas are removed. Seedlings of Celery and Leeks should be raised in March and transplanted in the seed-boxes as soon as the plants are large enough to handle, and later be planted out 2 inches apart in a patch of ground to keep them growing sturdily till required for the trenches. Seedlings half starved in seed-boxes will not succeed well when treated as a succession crop.

Runner Beans should be sown in May, and will produce an abundance of pods in July and August, but the plants usually become somewhat exhausted by early September. In order to obtain a good supply during September and October, a second sowing should be made in June, and this can be done without waste of space by dibbling the seeds between the autumn-planted Cabbage. This second sowing need not be finished with sticks, but the plants should be constantly pinched and treated as dwarfs. As soon as the Cabbages become ready for use they should be removed, and the stalks lifted to give the Beans the necessary space to develop.

Early Cauliflowers can be obtained in June by sowing in autumn and transplanting into cold frames for the winter, finally planting out in the open ground in April. The seeds may also be sown in gentle heat in January or February, such varieties as Walcheren, Early London, Early Mammoth or Earliest of All. Celery or Leeks can follow early Cauliflowers if the seedling plants of the former are treated as described above.

Shallots should be planted in February and lifted in early July for harvesting. The ground should be immediately prepared and sown with the Short Horn type of Carrot, Lettuce, Turnip, or other quick-growing crop.

Spring-Sown Onions should be lifted for harvesting when fully grown, generally in mid-August, and the land be immediately planted with Winter Spinach.

When only 10 rods of land are available, it is doubtful whether it is advisable to grow late Potatoes, as these can be purchased at a reasonable price from a farmer in the autumn; but if the land is planted as shown in the plan, a supply of fresh vegetables can be obtained from April to late autumn, the land producing for the most part two crops and sometimes three. Intercropping between strong-growing late Potatoes is not recommended, as this usually means overcrowding.

Cropping a 20-Rod Allotment.—Ten rods should be cropped according to the plan under discussion. The remaining 10 rods should be planted as follows: 7 rods of late Potatoes planted 16 inches apart in the rows and the rows 28 inches asunder; 1 rod of second-early Potatoes (intercropped with winter greens); 1 rod to be used as a seed and nursery bed for pricking out seedlings, &c. This space to be used for growing late Turnips or salads after the seedlings are removed. The remaining space to be used for Spinach, Beet, Tomatoes, Salsify, Artichokes and other small crops.

A. E. BURGESS.

CROPPING PLAN OF 10-ROD ALLOTMENT, SHOWING SYSTEM OF INTERCROPPING AND SUCCESSION.

BROAD BEANS (2 rows).	Herbs and Rhubarb. Brussels Sprouts to follow.
PEAS, EARLY, SECOND-EARLY AND LATE (1 row each)	Radish and Spinach to be sown same time as Peas. Celery and Leeks or Winter Greens can be planted a few weeks before Peas are gathered, between the rows.
WINTER LETTUCE (1 row).	
EARLY POTATOES (7 rows).	Winter Greens to be planted between rows as soon as early Potatoes are earthed up. Potatoes to be lifted as required in June and July.
AUTUMN-PLANTED CABBAGES (3 rows).	Runner Beans for succession, dibbled in between the Cabbages in June. Cabbages to be removed as soon as ready.
DWARF FRENCH BEANS (2 rows).	Broccoli to follow Beans.
EARLY CAULIFLOWER (2 rows).	Celery or Leeks to follow early Cauliflower.
SHALLOTS (4 rows).	Short Horn Carrot, Lettuce or Turnips to follow Shallots.
AUTUMN-SOWN ONIONS (3 rows)	Onions to be lifted as required in July, followed by late Turnips.
SPRING-SOWN ONIONS (5 rows)	
LONG OR INTERMEDIATE CARROT (5 rows).	
SHORT HORN CARROT (2 rows).	Colewort to follow.
ROUND BEET (2 rows).	Colewort to follow.
LONG BEET (4 rows).	
PARSNIPS (2 rows).	
EARLY TURNIPS (2 rows).	Late Cauliflower or Broccoli to follow Lettuce, Radish or Spinach.
RUNNER BEANS (1 row)	Marrow Bed.

NEW AND RARE PLANTS

AWARDS OF MERIT.

Narcissus Coral.—A triandrus hybrid of good size.

Narcissus White Pearl.—Another fine triandrus hybrid of almost Leedsii size. A superb variety.

Narcissus Phyllida.—A pale bicolor incomparabilis and a particularly good flower. These three were from Mr. W. F. M. Copeland, Shirley, Southampton. All received the award for show purposes.

Narcissus White Pennant.—A fine Leedsii, though it appears as much a white Ajax. The large pointed perianth segments render it striking and distinct. Shown by Messrs. R. H. Bath, Limited, Wisbech. (For show.)

Androsace Lageri Warley Variety.—Those who know the typical pale pink form will appreciate the new-comer with its rosy red flower clusters. A gem among inch-high alpine not easily overpraised.

Armeria cæspitosa.—Another inch-high alpine of quite easy culture. The examples shown were crowded with flower clusters. These were from Miss Willmott, Great Warley.

Primula nutans.—A lovely new species from Western China, where it was found by Mr. Forrest in shady woodland. This intrepid plant hunter is to be congratulated for giving to lowland gardens this unique species. Flowers lavender blue, in a drooping umbel, and delightfully fragrant. Stems rather mealy. Shown by Messrs. R. W. Wallace and Co., Colchester.

All the foregoing were shown before the Royal Horticultural Society on April 18, when the awards were made.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Kitchen Garden.

Potatoes.—The main crop of this important vegetable must be planted as soon as possible. For most varieties a distance of 30 inches between the rows will suffice, while 18 inches should be allowed between the "sets." Shallow trenches or fairly deep drills should be made so that the Potatoes are at least 3 inches below the surface.

Carrots.—The long-rooted kinds may be sown in ground previously trenched, but the seeds ought to be sown thinly; this will prevent the necessity of thinning to any great extent. This should be borne in mind, especially where the maggot is troublesome.

Fruit Under Glass.

Peaches and Nectarines.—In the early houses the fruits will be swelling, and careful attention must be paid to such cultural details as watering and ventilation to prevent the trees receiving a check. To get the best possible colour and flavour, the fruits must be fully exposed to the sunlight, and to this end any foliage covering the fruits must be removed. Close the house early in the afternoon, and syringe the trees freely with water of the same temperature as the house. Where it is thought desirable, the border may be given some liquid manure about once each week, or a mulch with partly decayed manure. When the fruits begin to colour, less atmospheric moisture is needed, and whenever the elements are favourable more air can be admitted, but cold draughts must be prevented. At this stage, providing the weather is mild, the back or top ventilators may be left open an inch or so throughout the night.

Successional Houses.—Proceed to thin the fruits, and tie in the shoots required for next season. Keep insect pests, especially black and green fly, in check.

The Flower Garden.

Bedding Plants.—These will require a lot of attention just now in keeping them well supplied with water. Those in heated frames must be hardened gradually, and some of the Geraniums, Lobelias, Fuchsias, &c., may be transferred to cold frames. This will make it convenient to pot up other plants, such as Iresine and some of the larger subjects, of which Maize and Cannas may be cited as examples. Dahlias may also be potted; the old stools should be divided, and placed in a frame until it is safe to plant them in their summer quarters. Lobelia cardinalis Firefly may be planted out, unless it is required for bedding purposes. Calceolarias should be put out without delay; then they will become well rooted before they begin to flower. Pentstemons may be treated likewise.

Plants Under Glass.

Azaleas have now finished flowering, and when the blooms have been removed, they should be placed in a warm house to make some growth. Repotting is not advisable where the soil is in good condition, but a few plants may have become loose at the base, and these must be made quite firm with fresh peat. Syringe the plants liberally when the weather is bright.

Cytisus racemosus.—When the flowering period is passed, any necessary pruning may be done. Unless the plants are too large or require putting into shape, very little cutting back will be needed. Small examples can be potted on, and cuttings made from the new growths will root if placed in a close, warm frame. Give the same treatment as advised for Azaleas, and when the season's growth is made, the plants may be stood in the open for the wood to ripen.

The Hardy Fruit Garden.

Newly Planted Trees.—These must be examined occasionally and the soil made firm about the roots if from any cause it has become loose. Should the weather be very dry, the soil will crack, especially that of a heavy nature. The cracks must be filled by forking up the surface, and a mulch of manure given. Late-planted trees may require water, and in such cases a syringing overhead late in the afternoon will be beneficial.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)
Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Seed-Sowing.—With the sowing of Beetroot, Salsify, Scorzonera, and any herbs required, seed-sowing of the main crops may be said to be over for the season. Of course, a continuance must be made with successional crops of Peas, Spinach and salads to keep up a constant supply of fresh and tender vegetables. Beetroot for winter and spring supplies should not be sown earlier, as early sowings invariably run to seed; indeed, if much pressure of work is felt at present, the sowing of this crop may safely be left till the middle of May.

Kidney Beans.—A sowing of these may now be made outside in favourable localities, which may succeed well if no late frosts occur, although in many districts it is not considered safe to have any such tender plants above ground earlier than the second week of June; so that where such late frosts are experienced regularly, it is soon enough to sow Kidney Beans outside about the middle of May.

Vegetable Marrows.—To ensure a crop of this vegetable it is necessary to have the plants well advanced in frames on a slight hotbed before exposing them to outside conditions in June. Seeds should therefore be sown now and placed in heat to germinate, and as soon as the seedlings are through the soil the pots should be placed on a shelf near the glass, and before they get pot-bound should be planted in frames.

Tomatoes.—The earlier batches should now be well advanced. Those having a quantity of fruits set should receive some stimulant occasionally, but this must be given sparingly, or rough fruits of poor quality will result. Plants showing flower should be brushed daily to assist pollination. Very large trusses should not be encouraged, or

many of the fruits will be undersized and of little use. Keep the plants to single stems by suppressing all side growths, and remove a part of the foliage where it becomes too dense, not by removing one or two leaves entirely, but by shortening those overshadowing the fruits.

The Flower Garden.

Dahlias.—Young plants which have been raised from cuttings and are now well rooted should be potted on. This involves extra labour, but as the season is all too short for these plants out of doors, it is advisable to have them well advanced before planting out. The earliest plants may be moved to cold frames to become hardened. The old stools should be divided up and potted into 6-inch pots, retaining one shoot only, which must be supported with a stake. Their respective heights and colours having been classified when in flower last autumn, there will be no confusion at planting-time.

Chrysanthemums.—If properly hardened, these may now be planted out in their flowering positions. There are few more useful autumn-flowering plants than these, and any surplus plants may find a place in the herbaceous border; or they may be planted in a position from which they could be moved, either to take the place of some early flowering subject in the flower-beds or moved under glass to provide cut blooms at a time when outside flowers begin to get scarce.

Begonias.—Bulbs of bedding Begonias should now be started. It is not recommended to start these too early nor in too warm quarters; we find cold frames suit them well. If damped and shut up early in the afternoon, and protected with mats on a cold night, they make good, sturdy growths, which transplant well. A proportion should be grown annually from seed to replace old, worn-out bulbs. After a few years the bulbs begin to lose vigour and the flowers get smaller.

Fruit Under Glass.

Vines.—Some varieties are very liable to have their foliage scorched when sudden bright sunshine succeeds a period of dull weather. Even the most careful ventilation fails to keep the leaves from becoming damaged; the injury can sometimes be traced to faulty glass. The variety Gros Colmar seems to suffer most in this respect, and as a precaution the glass should be lightly obscured with a weak preparation which will get washed off before the autumn.

Plums and Cherries in Pots.—These require careful watching for attacks of green fly, and when it makes its appearance fumigating or syringing with Quassia should be resorted to. The trees, being restricted in root room, require regular supplies of stimulants. Syringe the trees twice daily with tepid water and shut up the house early.

Peaches and Nectarines in Pots.—The fruits will now be approaching ripeness, and the atmosphere should be kept less moist. Ventilate freely in mild weather and discontinue the supplies of liquid manure.

Plants Under Glass.

Cinerarias.—A sowing of these may now be made if they are required to be in flower about the beginning of next year. Very little heat is necessary to germinate the seeds; indeed, a cold frame with a cool ash bottom is the best place to put the seed-pan, pricking out the young plants as soon as they are large enough to handle.

Humea elegans.—Plants that are now in 5-inch and 6-inch pots should soon be ready for moving into larger sizes; 8-inch or 9-inch pots should be large enough to carry good-sized plants through the flowering season. Soak the balls well on the day previous to potting on, and daily dampings will be sufficient water for them until the roots have penetrated the new compost. Those required for planting out in the flower garden may also have a shift at this time.

Carnations.—The Malmaisons are now pushing up their flower-stems, and should be supported with stakes and the plants given a little more room. All side buds should be removed, and the plants given an occasional watering with weak liquid manure and soot. When the flowers are opening they should be shaded from bright sunshine.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

EDITORIAL NOTICES.

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

SUPPORT FOR SWEET PEAS (M. L. K.).—By using Simplicitas netting you would avoid all the inconvenience of sticks, which are inclined to rot and harbour vermin. It may be used either for rows or circles, and it can be taken up year by year, rolled easily into a small compass, and stored in a shed for future use. It is made by the Boundary Chemical Company, Limited, Cranmer Street, Liverpool.

TULIPS FOR BANK (Sojourner).—For purposes of naturalisation you would find the varieties of Gesneriana the more suitable, particularly such as lutea, major and aurantiaca. To these may be added sylvestris, Mauriana, macrospeila, Bouton d'Or, elegans, e. alba and those inimitables among yellow-flowered Cottage Tulips, Leghorn Bonnet and Mrs. Moon. If very early and dwarf-growing kinds find favour, these may be had in biflora, Kaufmanniana, the most beautiful of early flowering species, and persica, among many. There is an inimitable beauty in the brilliant, if small, T. linifolia, a real gem among the dwarfest sorts. Other bulbs should include Narcissus pallidus præcox, N. Queen of Spain, Anemone blanda, A. Robinsoniana, the three best Chionodoxas, C. Lucilæ, C. sardensis and C. Boissieri, with Muscaris and others. Hyacinth King of the Blues is perhaps the finest dark blue in cultivation. Perle Brilliant, porcelain and sky blue, we think one of the most charming. Grand Maître and Czar Peter are both good. If you wish for planting hints, kindly write again stating the extent of bank, aspect and other things.

TREATMENT OF BANK (Herbert C. Wettren).—It is always a little difficult to advise as to the treatment of an unseen site, and the best—often, too, the simplest—way of dealing with it could only be determined after inspecting it. Environment naturally plays a large part in such things. Whether the cutting is straight, fully exposed or shaded, you do not say. We gather, however, that the position is not important, and that you do not wish to incur much expense. In these circumstances planting with *St. John's Wort, *Butcher's Broom, *double Gorse, *Mahonia Aquifolium, *Flag Irises, Berberis Darwinii, Lilacs, Rosa rugosa, Aucuba, Guelder Rose and others might meet the case. Disposing of these thinly at intervals in small groups, the intervening spaces could be occupied with Foxgloves, Honesty, Evening Primroses, with, in autumn, Wood Hyacinths, Narcissi and other cheap bulbs. Or, by taking from the above list those marked with an asterisk, plantings of Wichuriana Roses, Clematises and perennial Peas could be introduced to trail and clothe the bank. Probably, too, if it was not desired to encourage grass, the hardy Heaths may be planted, or the more common London Pride and Saxifraga cordifolia purpurea.

LEUCOJUMS VERNUM AND CARPATICUM VAGNERI.—This is more an enquiry about these than a criticism,

but nomenclature is evidently a little mixed, and as one of them is now blooming, your readers may help. I planted some plants of Leucojum vernum ten years ago; they did not bloom for two years (Mr. Sanders in his excellent little Encyclopædia mentions this) and that sparingly. I shifted them to what I thought a better site; same thing occurred; they bloomed in January, beautiful little green-tipped white hoop petticoats, single or twins, no triplets; stem round, blunt, and foliage streaky. I got some fifty plants of vernum carpaticum Vagneri from Barr. These did not come up for two years, but are doing better now; they are just through the ground. As Barrs said, they bloom a month later than vernum, but are of the same type. In THE GARDEN, March 13, 1909, Mr. S. Arnott says Vagneri is earlier than ordinary vernum; in THE GARDEN, February 26, 1910, "W. I." says Vagneri is a month later and is yellow tipped; Mr. Bowles in "My Garden," Vol. I., September, says Vagneri is earlier and green tipped. Mr. Arnott says, in the "Book of Bulbs," that Mrs. Hope's is the latest spring one. Among 100 roots of æstivum I planted some ten years ago, one clump has always bloomed in January (i.e., three months before the rest of the line) with my vernum, but the foliage and growth are that of æstivum, and it bears on each pointed, flattened stem three to five blooms which are green tipped, lax, and without the character of vernum. Pulchellum least of all merits its name.—G. J. PADBURY, M.B., Coombefields, Azminster, East Devon. [To this enquiry Mr. W. Irving of Kew replies: "With all deference to Messrs. Bowles and Arnott, my version of Leucojum vernum and its variety carpaticum is correct. L. vernum, figured in the Botanical Magazine, t. 46, has green tips. L. v. var. carpaticum, in the Botanical Magazine, t. 1993, has yellow tips. The name Vagneri has no standing; it is only a synonym of L. carpaticum. Our plants of L. vernum var. carpaticum, obtained by Messrs. Ware from Transylvania in 1877, I think, are always a month later than L. vernum itself. Both often have more than one flower on a stem, but the variety is usually more robust, with more flowers on each stalk. L. v. carpaticum as sold is not always true. We recently purchased some which turned out to be only L. vernum."—Ed.]

TREES AND SHRUBS.

YEW HEDGE AND WALL GARDEN (E. E. K. C.).—It is probable that as your Yew hedge becomes well rooted it will have the effect of drying your wall beneath considerably, thus preventing the plants growing among the stones from obtaining the necessary moisture. A Lavender hedge ought to answer well in the position; the ordinary Lavandula Spica should be used. The Yews could be transplanted in May and would be likely to thrive in the soil described, but the occasional flooding would not be good for them. If anything is possible to prevent the flooding, it ought certainly to be done. Rosemary would also make a good hedge, but the Lavender is hardier.

NANDINA DOMESTICA (Subscriber).—Nandina domestica ought to grow very well out of doors at Sidmouth. Give it a position sheltered from cold winds but exposed to full sun. Loamy soil into which a little peat or leaf-mould has been mixed will answer admirably. A very suitable position would be the angle of a wall facing west or south, the plant to stand well away from the wall; but it may also be expected to thrive in the open garden if sheltered from cold winds. Calceolaria violacea can be pruned at once. Shorten the injured shoots and remove some of the oldest wood, that appears to be getting worn out, right to the base. A little manure placed about the plant will have beneficial results.

PROPAGATING THE DOUBLE-FLOWED DAPHNE (W. F. W.).—We presume that you refer to the white-flowered form of Daphne Mezereum (D. M. album), and, that being the case, propagation can be easily effected by means of seeds. Collect the fruits when ripe, or when quite yellow in colour, and rub them in sand to clear the flesh from the seeds; then sow in a box or bed of sandy soil, covering the seeds about a quarter of an inch deep. If you like, the box can be stood in a cold frame, but the seeds will vegetate in the open ground. Should you refer to the dwarf white-flowered Daphnes, sometimes grown in rock gardens, some are increased by grafting on stocks of D. Mezereum, others by layers, and all by seeds when such can be procured.

FRUIT GARDEN.

CLAY OR WAX FOR GRAFTING (Quince).—Good grafting wax is certainly better than poor quality clay to which you refer. In any case, grafting wax is much easier to use and it saves a great deal of time. It is quite effective and is now used by the leading fruit growers. You should try "Tenax" Grafting Wax; it may be obtained from Corry and Co., Limited, Bonded Chemical Works, Shad Thames, London, S.E.

GRAFTING A TWELVE YEAR OLD APPLE TREE WITH TWO YEAR OLD SHOOTS (L. W.).—No; two year old shoots will not do. The scions to be grafted should have been cut from the tree some months back, and the bottoms buried 4 inches deep in soil until required for grafting, as they must be perfectly dormant at the time. The sap is active in shoots cut now, and they would be of no use. You might be able to procure from fruit tree nurserymen prepared cuttings of the variety you wish to graft, if you knew its name.

SELECTION OF CHERRIES (Anne Amateur).—Black Heart is one of the oldest and best; Early Rivers, an excellent early black variety; Frogmore Bigarreau, a delicious and prolific yellow variety; Guigne d'Annonay,

early black variety of great excellence; Knight's Early Black, one of the earliest and sweetest, good all round; Napoleon Bigarreau, brilliant scarlet, heart-shaped, and good in all respects, much prized as a market Cherry; Florence, a grand late Cherry of large size, firm flesh, deliciously flavoured, pale yellow with red markings; Governor Wood, moderately early, a golden heart-shaped variety of the greatest excellence; Noir de Guben, shining reddish brown, rich and sweet; May Duke, dark red, a well-known and approved sort; Waterloo, deep black, large, flavour superb, fruit hangs on the tree a long time after it is ripe.

MISCELLANEOUS.

WIREWORMS (Anxious).—Yes; wireworms will be likely to damage the Tomatoes very seriously. Your best plan, as you have the loam stacked, will be to make holes at intervals and pour into them carbon bisulphide at the rate of about 3oz. to 4oz. to the cubic yard. The depth of the holes will depend upon the height of the heap, of course. The holes must be filled again immediately after the carbon bisulphide has been poured in, and no flame must be allowed to come near the substance, which is extremely poisonous to animal life, very inflammable and very evil-smelling.

CELERY LEAF-SPOT (H. S. P.).—The best treatment for the Celery leaf-spot disease is to spray the plants from May onwards with Bordeaux mixture. The disease spreads by means of the seed, and we fear that many samples on the market are affected by it. Steeping the seed for an hour in hydrogen peroxide is a preventive measure of value, and better still would be the saving of seed from plants free from the disease. Care should be taken to burn all parts of diseased plants, instead of digging them in or putting them on the rubbish heap.

VARIOUS QUESTIONS (Miss A. I. Savage).—Trees and shrubs cannot produce seeds without first bearing flowers. The flowers may, however, be so small as to escape notice. Growth of Rhubarb is more rapid in the dark than in the light; hence the practice of placing the roots in a dark building. Seakale plants from which good heads have been cut will not yield a sufficiently heavy crop of young shoots to warrant keeping them in the forcing-house, although some new shoots will be borne. We do not know of any way of growing Mushrooms without manure; they can, however, be grown in quite small tubs and boxes if manure is used. Ferns, Palms, Fuchsias, Cinerarias and Primulas can be used for house plants after the end of the bulb season. Such plants should be purchased, as it is too late to prepare them in time for the present season. It is probable that the lecture to which you refer will be published in the society's journal.

PLANTS FOR ROCK BANK (Amateur).—If the plants are to be associated with stone, we should arrange such things as Helianthemums (Rock Roses) in variety close to the border at the top, so as to trail down. They are continuous bloomers and may be had in pink, white, orange, yellow and other shades. Other important groups are subulata Phloxes Vivid, Model (pink), Nelsonii (white), atropurpurea and G. F. Wilson (lilac); Aubrietias Dr. Mules, Prichard's A 1, Moerheimii, Peter Barr and Lavender; Campanulas Miss Willmott, G. F. Wilson, muralis, pusilla alba, garganica, g. hirsuta, caespitosa and raddeana; Saxifragas Clibranii bathoniensis, Wallacei, Arkwrightii, sanguinea superba, oppositifolia alba, o. major, o. pyrenaica, apiculata, sancta, Bursleriana major, B. Gloria, Aizoon rosea Mrs. Leng, Haagii, pectinata, linguata superba, Dr. Ramsay, aizoides atropurpurea, muscoides atropurpurea and Rheil. In addition, Silene alpestris, Saponaria ocymoides, Achillea Clavennæ, A. tomentosa, A. umbellata, A. Kellereri, Gentiana septemfida, G. acaulis, Gypsophila prostrata, G. cerastioides, Pulmonaria azurea, Polygonum affine, Iberis Little Gem, Dianthus deltoides Brilliant and Aster alpinus might all be used with advantage. Those named would give a long season of flowering and much variety, though whether you have room for all would depend upon the character of the arrangement adopted. You really require some help on the spot.

MEDICINAL PLANTS (D. W.).—The land you describe is not suitable for the cultivation of medicinal plants without being properly prepared, which would mean trenching and manuring. Even then it would be necessary to consider whether there would be a local demand for the produce, or whether you would need to send a considerable distance to a market. It is probable that druggists in Liverpool might purchase your crop, but the leaves, &c., would have to be very carefully dried before you could offer them to a likely purchaser. A few subjects which are in demand at present are Belladonna, Digitalis, Chamomile, Peppermint and Henbane. Before commencing the culture of medicinal plants, it would be wise to apply to the Secretary, Board of Agriculture and Fisheries, 4, Whitehall Place, London, S.W., for the number of the Journal of the Board of Agriculture containing the special article on "The Cultivation of Medicinal Plants," or the special circular issued on the subject; the price is 4d. It would be well to remember that a crop could not be gathered at the earliest before the summer of 1917, and as many people are now planting medicinal herbs, it is probable that in two years' time the present high prices obtained for certain drugs will have disappeared, and a very small return will be obtained for the present outlay. You would doubtless find that vegetable cultivation would prove a greater financial success, considering the character of your soil.

NAME OF PLANT.—C. D., Cheadle.—Chionodoxa Lucilæ gigantea.

THE GARDEN.

No. 2320.—Vol. LXXX.

MAY 6, 1916.

NOTES OF THE WEEK

Narcissus with Divided Corona.—Messrs. Carter Page sent a Narcissus to a recent meeting of the scientific committee of the Royal Horticultural Society which for the second time was producing flowers with the corona deeply divided into six segments almost equal in size to the perianth segments, opposite to them, and lying upon them.

Varieties of Anemone nemorosa.—At a recent meeting of the scientific committee of the Royal Horticultural Society, Mr. E. A. Bowles showed a series of wild forms of *Anemone nemorosa* illustrating the wide variation this species exhibits. The series included the form known as *Robinsoniana*, which was probably introduced from Norway; a beautiful blue form with prettier buds than has *Robinsoniana*, called *purpurea*, found at Pau by Grant Allen; a bluish early form, earlier than *Allenii*, and a form from the Lismore woods collected by Miss Currey; Lady Donegan's form, which appears to be common in Ireland, with pinkish flowers of large size and good substance; a pink form from the Cotswolds with pink buds; a fine white form with pink back and purplish leaves; an early pink form and a late one, and a pure white form with round flowers. He also showed *A. ranunculoides* and a pale form of it called *pallida*.

Royal Horticultural Society's Lindley Library.—The Lindley Library of the Royal Horticultural Society has been presented with a magnificent collection of books from the library of the late resident of the society, Sir Trevor Lawrence, Bart., K.C.V.O., V.M.H., whereby many gaps which previously existed on the shelves are now filled. The volumes are beautifully bound in half calf, are all valuable, and in many cases rare. They bear a bookplate inscribed: "Presented to the Lindley Library of the Royal Horticultural Society in memory of Sir J. J. Trevor Lawrence, Bart., K.C.V.O., V.M.H., President of the Society from 1885 to 1913, by his children, 1916." Among the books may specially be mentioned H. C. Andrews' "Coloured Engravings of Heaths," four volumes; H. W. Bates' "The Naturalist on the River Amazon," two volumes; Conder's "The Flowers of Japan"; J. Curtis' "British Entomology," eight volumes; Mrs. J. Hussey's "Illustrations of British Mycology,"

two volumes; T. Moore's "Illustrations of Orchidaceous Plants"; R. Warner's "Select Orchidaceous Plants"; Lindenia, "Iconographie des Orchidées," seventeen volumes; "L'Orchidophile," ten volumes; "Journal des Orchidées," seven volumes; "La Belgique Horticole," thirty-five volumes; "Revue de l'Horticulture Belge," twenty-five volumes; "Journal of Botany," forty-five volumes. This welcome addition

white blossoms, deeply flushed with purple on the exterior. These are produced in abundance, and a well-grown tree, some 15 feet to 20 feet in height, is as charming a picture as one could wish for in early May.

A Fine Mass of Saxifraga apiculata.—Those who have only seen an isolated plant or a moderately sized patch of this attractive Saxifrage must use their imagination if

they would at all adequately realise the effect produced by a mass of it extending to quite 60 square feet and smothered with its lemon flowers, as we saw it in the rock garden in the Royal Botanic Garden, Edinburgh, the other day.

Saxifraga oppositifolia.—One so often sees clumps of this fine plant which as the summer progresses look very woe-begone. The bright flowers and green foliage have given place to a brown, dried-up appearance, which unmistakably shows that the plants are not happy. The secret of success seems to be a systematic working in of fine leaf-soil all over the clumps about every three weeks during the period of growth. This provides a medium into which the new roots may penetrate, and if the initial position chosen is one which is screened from the hot midday sun of summer and autumn, the results will surprise those who only know *S. oppositifolia* as a difficult subject. This is, we believe, the reason why it always looks so well and thriving at Earham Hall, near Norwich.

The White Form of Chionodoxa sardensis.—Frequently white forms of well-known flowers are anything but satisfactory, or white. Take the so-called white *Scilla sibirica* or the white perennial *Delphiniums*, with one notable exception. Neither of these is quite what the public expects when they read of a white flower. The white form of *C. sardensis* is, however, a pure white, and as it is in all other respects the exact counter-

part of the well-known deep blue variety, it is one of the most desirable of all spring flowers. It is perfectly hardy and very free blooming, and is a plant to remember when the next bulb order is being made out.

*** Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.



A WELL-GROWN DRIFT OF OUR NATIVE SAXIFRAGA OPPOSITIFOLIA.

enhances the value of a library already rich in botanical and horticultural works.

Magnolia soulangeana.—This beautiful tree, now flowering in many gardens, is generally considered to be a hybrid between *M. conspicua* and *M. purpurea*. It flowers about three weeks later than *M. stellata*, and in consequence it has a better chance of escaping the early frosts at the time of flowering; it has large

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Violets Changing Their Odour.—I see you "turned down" the enquiring lady who discovered that stale Violets smell like Cucumber (issue April 8, page 166). Why not be frank and tell her that they always have done so?—GILBERT SUMMERS, *Hounslow*.

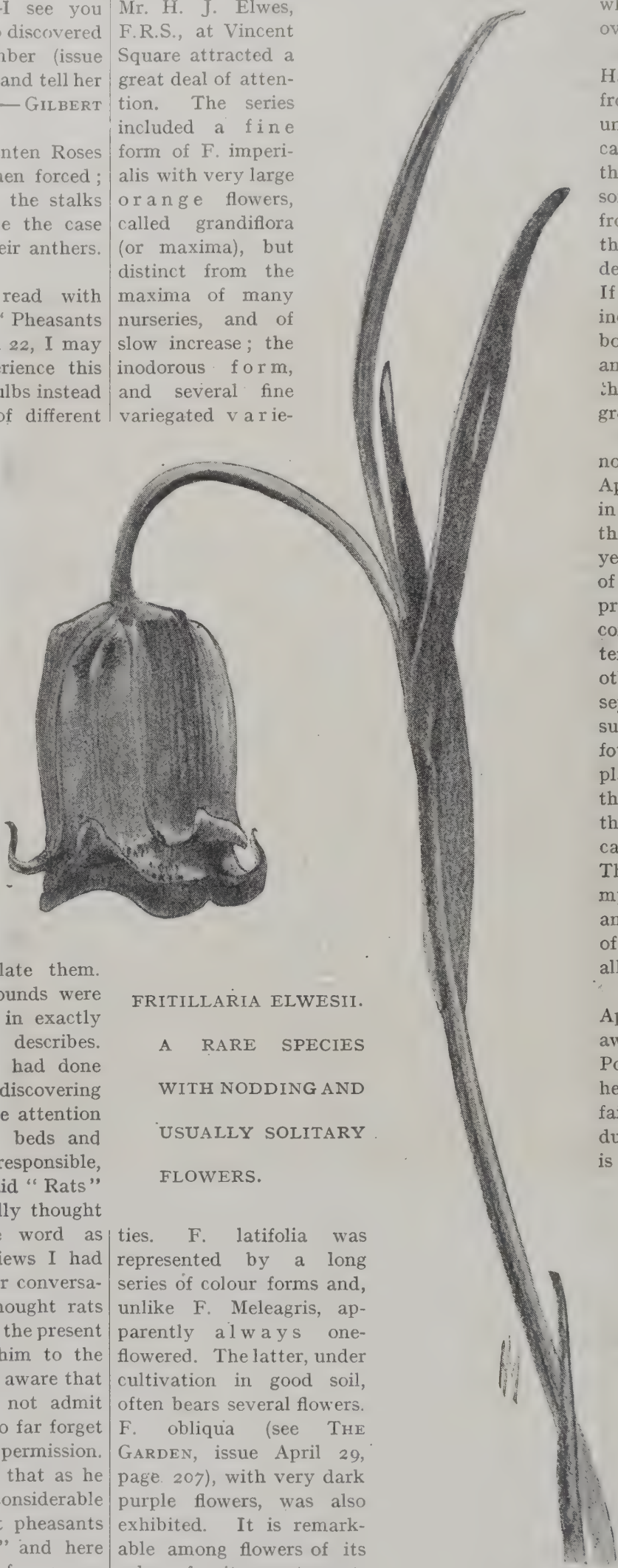
Lenten Roses as Cut Flowers.—Lenten Roses are splendid for cutting, especially when forced; but you must not cut them off until the stalks have become hard, which will not be the case until the first flowers have dropped their anthers.—I. S. RUS, *Kvaerkehy, Denmark*.

Pheasants and Tulips.—Having read with interest "E. A. B.'s" remarks on "Pheasants and Tulips" in THE GARDEN for April 22, I may say that I have had a similar experience this winter, but in this case it was *Lilium* bulbs instead of Tulips. I had a lot of *Liliums* of different varieties planted throughout the herbaceous borders, and they were all dug out (with the exception of one or two which were apparently missed) in exactly the same manner as "E. A. B." describes. I do not know if there are any means of prevention other than shooting or trapping, which is not lawful at this season of the year.—J. C., *Kinlochleven*.

—To "E. A. B.'s" enquiry about pheasants eating Tulips, we have had a like experience this spring, having had a large quantity of Crocuses eaten by partridges and pheasants, not in a remote spot, but on the lawn near the house.—P. H. A., *Bulstrode*.

—Regarding the note by "E. A. B." on the above, my recent experiences have been so similar that I feel bound to relate them. Beds of Tulips in the pleasure grounds were attacked and devoured by pheasants in exactly the same way as your correspondent describes. I at first thought it was rats which had done the mischief, but was not long in discovering my mistake. However, on drawing the attention of the head-keeper to the mutilated beds and informing him that pheasants were responsible, he, at the conclusion of my remarks, said "Rats" in such an abrupt manner that I really thought for the moment he was using the word as an expression of contempt for the views I had put forward on the subject, but further conversation elicited the fact that he, too, thought rats had been at work. I may say that up to the present I have not succeeded in convincing him to the contrary, although I suspect he is quite aware that pheasants really like Tulips, but will not admit that the birds under his charge could so far forget themselves as to take the bulbs without permission. It is, at any rate, interesting to note that as he walked away, he remarked with some considerable heat, "I have heard people talk about pheasants eating Mangel-wurzel, but Tulips—" and here words failed him. Unfortunately, so far as protective measures are concerned, one is forced to become a "conscientious objector," as pheasants' lives are, generally speaking, sacred.—F. W. MILES, *Ware Park Gardens, Ware*.

Rare Fritillarias.—Many of the Fritillarias are flowering with uncommon freedom this spring, and this may account for the great interest now taken in the genus. The series of Fritillarias recently shown by Mr. H. J. Elwes, F.R.S., at Vincent Square attracted a great deal of attention. The series included a fine form of *F. imperialis* with very large orange flowers, called *grandiflora* (or *maxima*), but distinct from the *maxima* of many nurseries, and of slow increase; the inodorous form, and several fine variegated varie-



FRITILLARIA ELWESII.

A RARE SPECIES

WITH NODDING AND

USUALLY SOLITARY

FLOWERS.

ties. *F. latifolia* was represented by a long series of colour forms and, unlike *F. Meleagris*, apparently always one-flowered. The latter, under cultivation in good soil, often bears several flowers. *F. obliqua* (see THE GARDEN, issue April 29, page 207), with very dark purple flowers, was also exhibited. It is remarkable among flowers of its colour for its sweet scent. *F. Elwesii*, illustrated on this page, was collected by Mr. Elwes in the rocky woods of Caria in Asia Minor. It is one of the earliest to open. The flowers are nodding and are borne either singly or in

pairs on stalks about 18 inches in length. The outer segments of the flowers are green, edged with purple, while the inner segments are of a deep uniform purple. Although not a showy plant, it is interesting, and well worth a place in garden where species are cherished and given the preference over garden varieties.—Q.

Fritillaries at Oxford.—I hope that Sister Hamilton Watts will not only keep these flowers from the ward, but from the City of Oxford unless in very small quantities. As "H. C." cares for Fritillaries, I hope that he will persuade the owners of these fields where they grow to do something to preserve them. At present marauders from Oxford and village children almost strip the meadows, and we can never have the keen delight of seeing a meadow nearly full of bloom. If they were allowed to seed freely, they would increase. A friend of mine living in the neighbourhood tells me that he fears they will diminish and in time disappear if the reckless plucking of the blooms goes on. He is an expert in plant growing.—F. A. STURGE.

Campanula excisa.—Referring to Mr. Arnott's note on *Campanula excisa* in THE GARDEN of April 22, it may be interesting to know that, in spite of the definite statement to the contrary, this *Campanula* will flourish in lime. Two years ago I planted a small plant in the portion of a small built-up moraine which is filled in with practically nothing but limestone, and it is now coming up more freely than ever on an area extending about 14 inches one way by 8 inches the other. I counted between fifty and sixty separate shoots that have appeared above the surface up to now. [After all most *Campanulas* are found growing on limestone formation.—ED.] This plant flowered fairly well last summer, but when anything fragile is in bloom we generally have heavy thunderstorms here. It has suffered badly from this cause both years that it has flowered with me. The greatest enemies to this *Campanula*, so far as my experience goes, are slugs. If there is one anywhere in the district, it seems to make a point of going for this particular plant in preference to all others.—T. A. L., *Middlesbrough*.

Narcissus Poetry.—In THE GARDEN for April 22, page 198, N. Poetry, which gained an award of merit on April 11, is said to be like the Poetaz Minerva. May I say that I have never heard of any Poetaz of that name. Minerva is a fairly well-known Poet with a rimmed eye, introduced into commerce in 1910. Moreover, Poetry is a triandrus hybrid and not a Poetaz at all. It

has not the least resemblance to Minerva, except in so far as there is a corona and a perianth in both.—JOSEPH JACOB.

Leaf-Cutting Bees in Flower-Pots.—I see in a recent issue a note on the leaf-cutting bee, in which you state you have never before heard of these bees in a flower-pot. It may interest you to know that every year I have at least five or six or more pots in which they make their cells. They are very fond of a Cyclamen pot and burrow in under the corn. They also invariably attack a hanging pot I have containing a dwarf *Campanula*, making their entrance from underneath. They also annually go for some Cacti I have of the Mammillaria type. I have never scientifically studied the insect, except watching it at work on the Roses and in the pots, and I only know it as an insect that nests in pots.—T. RANDOLPH-SYMMONS, *Kelvedon*.

"Apricot" Lily.—If I had to guess the name of the Lily described as "Apricot," which is referred to in "Answers to Correspondents," page 188, April 15, I should suggest *Lilium elegans alutaceum*.—H. P.

The "Breaking" of Freesias.—In answer to the Rev. Joseph Jacob's query of April 22, although I cannot claim to be a botanist of "high degree," may I, nevertheless, put forward the following suggestion? The original Freesia from which our greenhouse varieties came was, I believe, white. The coloured varieties, which are produced by man's selection and breeding, considered from Nature's point of view are abnormalities and possess in all probability a tendency to reversion. May it not be possible that these breaks are only "partial" reversions to some ancestor of the flower in question, showing its tendency to "total" reversion to a type which the plant had found in the course of many generations most suited to its safe preservation?—H. D. MURRAY, *Lightwood, Kenley, Surrey.*

A Letter from Japan.—I left England on January 31 and reached Japan on February 19, travelling via Scandinavia, Finland, Russia, Siberia, Manchuria and Korea. It was an adventure, but a very interesting journey. It is getting warmer now (March 10), but the temperature goes down below zero every night. Still we have *Prunus Mume* in full flower. In three weeks' time we shall probably have the famous Cherry blossoms. It is very difficult to grow alpine plants in Japan, but I have a very keen friend not far from my home. I have a young Gorse plant in my garden which I raised from seed. It flowered last year for the first time, and is going to have a good many flowers this year.—H. TAKEDA, *Fujimicho Shichome 6, Kojimachi-ku, Tokyo.*

The Seeding of Ophrys.—In Mr. Edward H. Woodall's "Notes from the Riviera," page 184 of *THE GARDEN*, April 15, he asks the question, in connection with "The Seeding of Ophrys," "Why do they appear in quantity for one, two or three years perhaps, and then disappear suddenly?" I noted something of the same thing in connection with the Lesser Butterfly Orchis (*Habenaria bifolia*). Here, at a rather open part of a young plantation, and where old stumps of trees crop up among the grass, &c., quite a large number of *Habenarias* flowered in the year 1914; but the following year, 1915, very few, either plants or flower-spikes, could be seen. This year, if all goes well, I intend to make a survey of the place again and see what occurs. Now the same thing does not seem to happen with the Spotted Orchis (*Orchis maculata*), as one bed I know—if the use of that term may be allowed—contains quite a large number of plants, and these have been very floriferous for the past three years in succession. The height and vigour of the plants varied considerably, but no doubt this may indicate that there are younger and older plants in the bed. The bed is surrounded by trees and shrubs, and from their healthy appearance it was quite apparent that these Orchis plants have

found the situation and damp loamy soil very congenial.—DAVID ARMSTRONG.

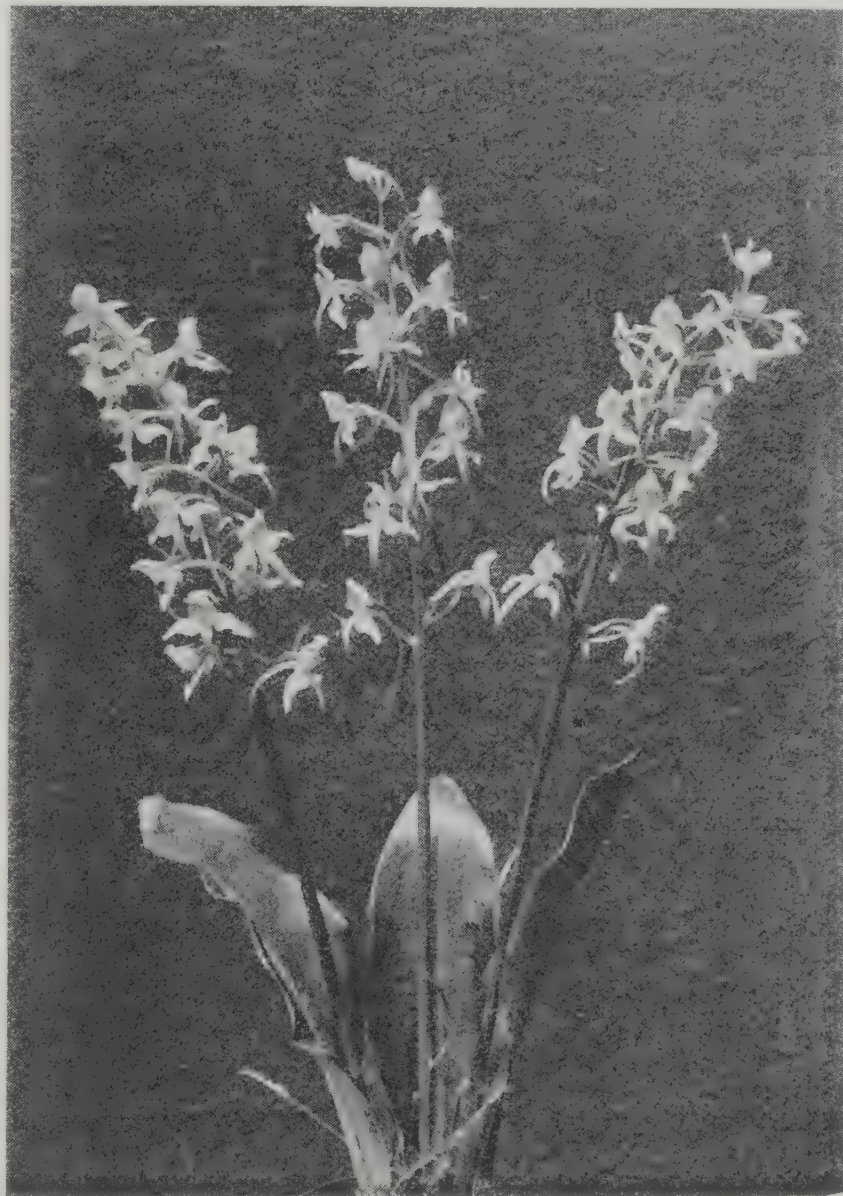
Michauxia campanuloides.—If "A. La T." will take ordinary care, she will find no difficulty whatever in growing this beautiful plant. Introduced from the Levant in 1787, it is a well-known plant, and is to be found flourishing in most gardens where hardy plants are grown. I have never found it difficult, and even if it were to require any extra care it would be well worth it. It has often occurred to me that there is a rather widespread impression which assumes that because a plant is classed as hardy, it may be roughly treated with impunity, planted anywhere and anyhow and left to take care of itself, and then if it dwindles and dies it is at once set down as

spring. This *Michauxia* is a singularly graceful and beautiful plant. It is a pity it is not more often grown. I find it just as hardy as the Wall-flower.—R. W. CAREW HUNT, *Albury, Oxon.*

A Productive Apple.—From a standard tree of Apple Beauty of Kent we gathered in the autumn rather more than 1½ cwt. of fruit. The tree was planted, I believe, about twelve years ago, and its dimensions, roughly, are 14 feet from the ground to the topmost branches and 11 feet across, the tree being practically of a perfectly balanced growth all round. In 1913 it also carried 1½ cwt., but last year the crop was small, the tree probably resting from the previous year's heavy cropping. Up to the year 1913 the crops had always been very good, likewise the quality.

Naturally, the yields of 1913 and 1915, being so prolific, contained a larger percentage of smaller fruits than is customary, indication, of course, that thinning should have been more rigorously practised. From the foregoing it will be seen that Apple Beauty of Kent is a thoroughly reliable variety, and intending planters will never regret it if they give it a place in their plantation. The fruit is an excellent cooker, and we have had it in good condition in early May.—C. T. [On April 25 we received from our correspondent an excellent example of this long-keeping Apple.—ED.]

Prince Charlie's Rose.—I think Sir Herbert Maxwell is right in stating that Prince Charlie's Rose is the double form of the Burnet Rose (*R. spinosissima*), and it is known as such in many districts of Scotland besides the south-western portion of the country. Long as *Rosa alba plena*, the double white alba Rose, has been in cultivation in Scotland, many double forms of *R. spinosissima* have been grown still longer. In Prince Charlie's day many double Scotch Roses were in cultivation, and several of those varieties are still in existence. In the gardens of one great Scottish nobleman there are some ninety Scotch Roses in his collection; they are very old Roses, survivors of the days when the little double native Roses were highly popular and greatly esteemed North of the Tweed. In one ancient catalogue of an old Scottish firm of nurserymen, over 300 varieties of Scotch Roses are listed. Many of them must have been very similar and differed in name only. I grow twenty-two varieties which are quite distinct, but no doubt more could be



THE LESSER BUTTERFLY ORCHIS (*HABENARIA BIFOLIA*).
AN UNCERTAIN PLANT TO FLOWER.

"miffy." There are "miffy" plants, of course, but the cause can generally be traced to wrong position, unsuitable soil, neglect or injury. Genuinely "miffy" plants are much rarer than is supposed, and there would be fewer still if a little more thought were to be given to their requirements.—E. WILLMOTT.

— I do not suppose it was in my Oxfordshire garden that your correspondent "A. La T." saw *Michauxia campanuloides* growing, though she could certainly have often done so. But I should like to aver that there is really no difficulty about growing it. It should be sown now, planted out from the seed-pan as soon as the plants are large enough, and removed to the border in the autumn or early

collected throughout the country if one took the trouble to do so. In a certain village in Scotland—the scene, by the way, of one of the principal events in the life of Prince Charlie—there is a very ancient garden. In it, handed down from sire to son with that veneration for tradition so peculiar to some districts, there is a plant called Prince Charlie's Rose. It is the double form of the Burnet Rose. In that garden there is also a very old plant of the true Scotch yellow single Rose, now so rare, and perhaps the finest of all the single yellow Roses. I have often been asked for Prince Charlie's Rose and never had any hesitation in supplying the double Burnet variety, and that, I believe, is the correct one.—GEORGE M. TAYLOR, *Midlothian.*

NOTES FROM THE RIVIERA

BY EDWARD H. WOODALL.

Prunus Mume.—On one of the many wet days that March gratified us with, I happened to take up an old, old volume of *THE GARDEN* of the year 1896, and there I found a coloured plate of *Prunus Mume*, of which I wrote the other day. It must, however, be a very inferior form that is depicted there—it is in no way comparable with the brilliant rose red, semi-double form that flowered with me here, and if that is the form grown in England, the sooner it is discarded for a better plant, the more will it be planted in the future. Not that I think so early a flowering plant can ever be depended on for outdoor flowering in the English climate. I see there are both white and rose red varieties mentioned as being then in cultivation at Kew. I hope they are still surviving, even if neglected by the public. In that volume is also a plate of the now well-known

Dendromecon rigidum, taken evidently from very young plants not fully developed in any way, and giving so inadequate an idea of what it really is that I hope some day a more worthy presentment may be given us. The flowers here are at least three times as large, and the petals round and cupped and full, not starry as in the plate. Moreover, there are ten to fifteen flowers on each branching-headed shoot, crowned with these bold flowers. It is the peculiar "besom-headed" flowering growths that are so distinct with their clustering flowers at the tips. Owing, I suppose, to the genial and moist spring, *Dendromecon rigidum* has surpassed itself and crowned itself with glory. The dead old leaves are entirely hidden by the mass of flowers and young flowering growths. As in the case of shrubby *Spiræas*, the moment to prune this handsome and strong-growing shrub is shortly after the flowering period in spring. At a given point half way or more below these mop-headed flowering shoots a strong young growth appears. Then is the time to cut off and eliminate the forest of old flowering shoots, and throw strength into the new growths, which will in their turn split up at the end into a number of small flowering shoots that will give flowers more or less all the winter, and a luxuriant mass of bloom in spring.

Xanthoceras sorbifolia is, as usual, in great beauty now, with an abundance of finely developed racemes of its crimson-eyed white blossoms hanging from its sturdy, well-ripened shoots. Here it has the bad habit of seeding much too freely, and it is quite necessary to go round and cut off the fading flowers before the seed-pods are much grown. One of the pith-boring caterpillars is also a great enemy, and generally destroys a fine branch or two each year, so that it never achieves a really big bush's growth as in England, but the extreme abundance of its beautiful flowers makes it a very desirable thing.

Staphylea colchica, on the other hand, grows so

tall that it requires constant cutting back to keep it within arm's reach. Its long sprays, with bunches of its elegant creamy, sweet-scented flowers at every joint, are excellent for house decoration, and look particularly well with the salmon rose blooms of the Tree Pæonies, now in the zenith of their beauty. Though much used for forcing purposes in England, I think it is not as much grown in the shrubbery as it should be, because the coarser-growing and much less ornamental *Staphylea pinnata* is

confounded with it, and so it is not considered worth planting in fairly sunny situations. The leaves smother the flowers in *S. pinnata*, but in *S. colchica* the flowers are set off merely by the less profuse leafage, as well as being larger and more abundant altogether. Each spring the desirableness and beauty of the—

Wistarias strikes one more forcibly, and the deluging rains of March have made the flowering in April more luxuriant and beautiful than ever. *Wistaria chinensis* has the most solid and profuse clusters of bloom, but it will not thrive on dry and calcareous soils; even in this climate it only exists where the dry limestone soil prevails. Here the long, elegant Japanese *Wistaria multijuga* comes in, and will clothe the most arid limestone hillside with beauty; it is hard indeed to decide which is the more beautiful when seen at its best. There is this difference, however: that while the Chinese variety never varies from the type, as far as I have seen, the Japanese *Wistaria multijuga* varies very greatly. There are good and there are bad varieties, and I need hardly say the very good varieties are scarce. If one could be sure of getting only the very longest and deepest coloured forms, I think I should give the palm to *W. multijuga*, and I think it is the most fragrant of the lot. When you do find the yard-long racemes of richly coloured flowers you see in some Japanese temples, it is a thing nobody can forget; but when you buy a dozen

or more plants in Europe, it is a chance if you get one fairly good variety out of the lot! Those who live on

dry, chalky soils should, however, bravely invest, in the certainty that whether they get the very best or no, they will still be sure of getting an abundant growth and flower glory. The two white varieties are most beautiful, of course; but in this case I am sure I prefer the Japanese white *multijuga*, as it flowers three weeks later, and with its leaves, so that the fragile blooms are not so easily destroyed by rain or wind, and the length of the racemes is not to be believed when there is sufficient heat and moisture at the moment of their first flowering. The Japanese forms seed quite freely, so much so that I have seen the next year's blossom much diminished by the abundance of the seed-pods of the previous year. That is probably the reason why there are so many varieties. The Chinese form seeds very sparingly, and, as far as I have



PRUNUS MUME FL. PL., THE BRILLIANT ROSE-RED SEMI-DOUBLE FORM OF THE JAPANESE APRICOT.

observed, the white form is much more given to bearing seeds than the mauve.

This year, however, I think there cannot be much seed, for on the night of April 11 a very severe storm of thunder and hail visited this coast, and in a little more than ten minutes destroyed the flowers of Wistarias, Judas Trees, Spiræas, Pæonies, Tulips and Roses—the hail lying some inches deep in places. So the ground is carpeted with the shattered remains of flowers, and we must now wait some days before anything else can expand and help to hide the sad damage. But we shall have to wait long before such a perfect feast of bloom can repeat itself. As one said, the day before the storm, "it is too beautiful to last!"

RASPBERRY AND BLACK-BERRY HYBRIDS

LOGANBERRY SEEDLINGS.

The Lowberry.—Anyone who has been a faithful reader of *THE GARDEN* for years will remember that this berry was described, and an interesting coloured plate of it enclosed, in the issue of *THE GARDEN* for September 26, 1908;

also, on July 7 of the same year, at Holland Park, it received from the Royal Horticultural Society an award of merit. It was introduced by Messrs. Stuart Low and Co. of Bush Hill Park, Enfield, who christened it Low Junior. This being, however, a rather difficult name to express with the word "berry" after it, it was rechristened Lowberry. In a letter to me from Messrs. Low, they say that the Lowberry is the result of a cross between the Blackberry and the Loganberry, but it was the only one of many that they raised from seed which was of any commercial value. What we want in these berries is a real succession of them. Now here in the Lowberry, at least, we have a beginning, for it does not ripen for nearly a fortnight after the Loganberry, while the latter ripens at the same time as many of the Raspberries.



FLOWERING SPRAY OF XANTHOCERAS SORBIFOLIA.
A hardy shrub from China.



DENDROMECON RIGIDUM.

A shrubby Poppy of doubtful hardiness from the mountains of St. Barbara.

When I first procured the Lowberry a few years ago I was full of enthusiasm, and when it fruited my enthusiasm was greater still, for the fruit proved to be an inch and a half long, as big in diameter as the Loganberry, with a similar core, soft and eatable, but with the fruit as black as ink and having exactly the flavour of the Blackberry.

From my one plant I made a row 20 yards long. Last year, however, there were many showers when the fruit was ripening, and this has left me with very mixed feelings. I will try to give readers a description of

what I found. The growth of the plants was enormous; the prickles on the stems seemed to be more numerous and longer and sharper than those of the Loganberry; the growth seemed to be quite out of proportion to its fruiting capacity compared with that of the Loganberry; and the strange thing was that the fruit, while longer than the Loganberry, though not fatter in proportion, ripened sometimes at one end of the berry and sometimes at the other, leaving one half quite uneatable or unstewable. Also, many of the berries were fasciated; by "fasciated" I mean that two berries seem to have been born as twins, but not parted. And I found that many of the twins, dying when quite young, left their unmaturing dead bodies fast attached to their ripening better halves. Now one year, when we had a lovely sunny, hot season, the fruit was picked in excellent condition; but last year I found that after a shower of rain something like two-thirds of the ripe and half-ripe berries went mouldy at one end or the other. As a consequence of this and the above-mentioned defects, the quantity of fruit produced was very much less than in previous years.

A nurseryman told me some time ago that some baskets full of the Lowberry had been picked on his property and were put in his shop window overnight, and in the morning they were found to be nearly all a mass of mould, showing that in showery weather this berry is a very doubtful acquisition to the garden.

It may be, however, that this berry requires some special soil, treatment and climate, but if it can be made to grow well it is really a splendid thing. When stewed it has a flavour much more like a stewed Loganberry; when raw it tastes almost exactly like a sweet, juicy Blackberry. If it is necessary to remove a plant, great care must be exercised in taking out every little root, because every bit will subsequently grow and send up a

I note the colour of the blossoms is much deeper than usual, in consequence, no doubt, of the cooler treatment accorded the trees. We still depend upon the fertilisation by means of a hive of bees. I am quite sure that this pays in our case with the lesser amount of sunshine which we obtain. So far I note that the trees require more water than usual, simply because the roots have not been disturbed from the sides of the pots. I

fruit keeps so well when ripe. There need be no fear of splitting, which sometimes gives trouble when the trees are against a wall outside. We find the best Cherries for dessert uses in pots to be Guigne d'Annonay and Early Rivers as black varieties; Governor Wood and Frogmore Early Bigarreau as light-coloured sorts. May Duke is also grown so as to flower at the same time, for the sake of its pollen. In about a week our Cherry-house will be a mass of bloom. Not a tree appears to be missing this spring. Under usual circumstances we arrange for a few pot Cherries to be started in a smaller house, so as to have the first ripe fruit from the middle to the end of April.

I might add in conclusion that I still adhere to the top-dressing of all fruit trees in pots. It is a great assistance to them from the stoning period onwards until the ripening is completed. For this I use Wakeley's Hop Manure, with some good turfy yellow loam and old or spent Mushroom-bed manure. About one third of each is the proportion, but the greatest benefit accrues from the Hop Manure. The other two ingredients help to give consistency to the mixture, which is built up in a ring around the top of the ball. This rests in part upon the rim of the pot. The roots quickly find out and appreciate this aid.



A FLOWERING SPRAY OF MAGNOLIA STELLATA.

shoot, which will entail much extra work in weeding them out.

W. F. M. COPELAND

NOTES ON FRUIT TREES IN POTS

BY JAMES HUDSON, V.M.H

IN consequence of a shortage of labour I had last autumn to forego the repotting of our stock of fruit trees in pots. I am somewhat curious to know what the ultimate result will be this coming autumn. Will they make as good a growth as in past years, or will there be a weakening? We shall see in good time, no doubt. All that we could possibly do last autumn was to rake off the top-dressing and the surface soil of the previous autumn, and then give them some good loamy soil, and crushed mortar, as a surface dressing. Personally, I do not fear the result. So far none could possibly look better than our stock of forced trees does this spring. We are not forcing at all, but they would not be kept back any longer. All we have done has been to exclude the frost and keep the earliest trees in a minimum temperature of 40° at night. These are now just about setting, although many flowers are not yet open. These later flowers will not be so much depended upon.

calculate that our earliest fruiterers will ripen their fruits about the middle of June, *i.e.*, of such as Nectarine Cardinal and Peaches Duchess of Cornwall and Duke of York. Plum Early Rivers will possibly be ripe a week earlier, and Plum Early Transparent Gage about ten days later, or before the end of June. This early Reine Claude Plum of the French is highly appreciated for dessert. The second and third batches are now passing out of flower. Until within the past few days these have not had any heat. At the flowering stage we only aimed at 40° at night.

Our large stock of Cherries in pots has not thus far had any heat applied. The house is simply closed fairly early in the day. Even with this treatment the trees are a few days earlier than last year, when I noted the first flowers were open on March 4. This year there is a gain of nearly a week. The earliest to open its flowers is Early Rivers, but Guigne d'Annonay, if a few days later in flowering, will be ripe about ten days earlier. I calculate the third week in May for this first-early Cherry to be ripe this year. When first we begin to pick Cherries from trees in pots, we keep up a constant succession until the first-earliest are ripe on the open walls. Here there are sufficient of these trees to keep up the supply until the middle of August, on the average. I do not think any other dessert fruit pays so well for pot culture as the Cherry. The amount of fire-heat required is infinitesimal, and in addition the

no hesitation in recommending it to all who appreciate spring flowers. *M. stellata*, as its name implies, has star-shaped, pure white flowers, and is usually the first to open its blossoms, these generally unfolding about the first week in April. In one respect this is a drawback, as they are liable to get damaged by early morning frosts. However, it is such a beautiful shrub that this risk is well worth taking. Unlike most of the tribe, *Magnolia stellata* never attains a great size, forming at its full development a close spreading bush 6 feet or so high.

Magnolias appreciate deeply cultivated and well enriched loamy soil to which some peat and leaf-mould have been added. They can be successfully planted either in September, March or April; but as they are impatient of disturbance, they should be left alone as much as possible. Most nurserymen supply young plants in pots, and these are the best to purchase. Magnolias are seen to advantage when situated in front of dense belts of trees and shrubs. These answer a two-fold purpose—they provide shelter from north and east winds, which mar the flowers in spring, and form a dark background, which emphasises the glistening purity of the blossoms. These are points that ought to be remembered when it is decided to plant and grow the deciduous Magnolias.

A BEAUTIFUL MAGNOLIA

THE *Magnolia* illustrated herewith is a beautiful variety suitable for nearly all gardens, and one has

LENNOXWOOD, WINDLESHAM, SURREY

ASAD interest belongs to the house now illustrated. It was one of the last to be designed by the late Charles Edward Mallows, who died a few months ago. Few architectural draughtsmen of his time had a greater power of combining in a perspective drawing the accurate representation of the facts of the building, which truth demands, with an overveiling picturesqueness which commended the design to the observer. This very facility with pen and pencil somewhat obscured appreciation of his original gifts of design, but, as Lennoxwood shows, they were of no mean order. He had been in independent practice for nearly thirty years at the time of his sudden death, but had never lost the fresh enthusiasm and faculty for constant work which mark the life-long student. The revived art of town-planning had no more strenuous supporter, and he put much ingenious thought into schemes which he prepared for the remodeling of St. James' Park and the Horse Guards

Parade and for a great embankment on the south side of the Thames. His eye for the picturesque found him at his best in the invention of garden designs. At Lennoxwood the steeply sloping site gave good opportunity. The cruciform house plan which he adopted not only gave a round hall and rooms of attractive shape, but created two corners at the north-east and south-east which lent themselves well to geometrical design. To the south-east Mallows laid out a paved pool garden, to which the symmetrical angled front of the house makes a pretty background. L. W.

THE TIME TO PLANT HOLLIES

ALTHOUGH the various Hollies lend themselves so well to general cultivation, they are decidedly difficult to establish unless a few points regarding transplanting are observed. When the roots are to be pulled about to any considerable extent, it is necessary that transplanting should be done either during late April or early May, or in August or early September. At these times the vitality of the plants is most pronounced and Nature commences at once to repair injuries; whereas,

if the roots are disturbed in the depth of winter, they lie dormant for several months in cold soil, and the plants often suffer severely. Another point which is worth considering at planting-time is the reduction of the branch system to counterbalance the injury done to the roots, and it will be noticed that if a few branches are removed or shortened, the plants will be greatly benefited. Deep planting must also be avoided, for the most vigorous plants are those which have their feeding roots near the surface of the soil. One of the greatest mistakes imaginable is to bury the stems of trees, even to the depth of a few inches; yet it is often done with the idea that the plants will better withstand the effects of wind, an altogether erroneous conclusion. Should the weather be dry at planting-time, the trees must not only be well watered when planted, but syringed overhead twice a day for a few weeks. A surface dressing of decayed leaves will also do good. If by any means a large ball of soil can be moved attached to the roots, the work may be done at almost any time; in fact, plants can be moved any month in the year, but in such a case the roots are scarcely disturbed.



THE PAVED POOL GARDEN AT LENNOXWOOD.

DAFFODIL NOTES

BY THE REV. JOSEPH JACOB.

At Barr's at Vincent Square on April 11, and at Tewkesbury on April 13.—I must copy the little boy who remarked, when his mother called him extravagant for eating butter with his jam, "Why, mother? The same bit of bread does for both," and make the same note do for both the above displays. Both were excellent and contained flowers of high merit, both for the show tiers and for house and garden decoration. For cut flower arrangements I cannot imagine any combination which would be more charming than a mixture of Coral Queen (white perianth and flattish, pale lemon cup, picoteed with pink), Chamois (a small Leedsii with a pinkish eye), and the old Salmonetta (with its long, narrow petals and goblet-shaped, salmon pink cup). These are essentially varieties to grow for house decoration, but their delicate colouring is fragile and needs careful protection to preserve it. The Hon. Mrs. Yorke, who opened the Exhibition and Sale of Garden and Farm Produce for the Red Cross at Tewkesbury, admired Chamois particularly. She pointed it out as one of the prettiest flowers in the whole collection. She also highly approved of the other two. It is always interesting to know what those who do not specialise in Daffodils think of the various

varieties. These beautiful, frail coloured cups are well worth the trouble of some sort of shading when the buds are just opening, and they should be cut before they are fully expanded and allowed to develop in a comfortable temperature.

Both in London and at Tewkesbury Carmenta attracted attention because of its immense gramophone trumpet-shaped cup. According to my measurements at both shows it is an incomparabilis and not a "trumpet," the segments being longer than the corona; but in the new Classified List it is down as *rc*, that is, a bicolor trumpet. In this particular case it will not matter very much, as the variety is "more of a curiosity than a beauty" and is not likely to appear on the tiers. The corona is a pale lemon and gradually expands from the base to the brim, where it ends with a wide flange.

A little time at Tewkesbury before I was called upon to begin judging gave me an opportunity for a leisured inspection of the following red eyes or cups: Nyssa, Ruby, Charm, Messina, Red Beacon and Red Chief. The last named is a very useful second-class show flower and has a distinct red band round the cup, whereas the others are all red. Messina is classed as a Poet, and is only mentioned here because of its general similarity to the others. Nyssa is a new flower; it has a white reflexing perianth in which the individual segments incurve, and a flat orange red eye of much the same shade as in Charm. In

Ruby the colour is a trifle brighter, and the perianth, although tending to reflex, is smoother and certainly very much flatter. It is the pick of the quartet (Nyssa, Charm, Ruby and Red Beacon) for show purposes.

Battleaxe is a flower of the type of Helios, which in its turn may be said to be somewhat similar to that grand old show variety Gloria Mundi, but considerably larger in all its parts. The cup is goblet-shaped and of a pleasing reddish orange shade, but not so deep in tone as in Gloria Mundi, or in Ixion, which is another of these giant red cups. The perianth is flat and of pale yellow colouring, while the flower as a whole stands up well and looks you in the face. Lord French is a good, first-rate yellow show trumpet, almost a self, but the perianth, which is very smooth and nicely imbricated, is slightly deeper in

colour. Amor, a good, round-shaped bicolor trumpet, and Anzac, a two-shaded yellow, must not be omitted.

The London Show.—Page 247 of *Punch* for April 12, 1916, contains a very clever skit on "Economy in Dress: the New Smartness." I like the lady passing her "uncle's" shop window and saying to her friend, "Come along, Mabel. Don't make your mouth water looking in there. Old clothes are not for the likes of us."

The covering of the Royal Horticultural Society's staging on this occasion must have made anyone connected with other exhibitions positively mad with envy. None but millionaires and great wealthy societies could afford such luxuries now. It was a worthy setting of the latest fashion for the many and beautiful flowers that graced the long rows of tiers in the Hall at Vincent Square on April 18 and 19 last. Notwithstanding the very trying weather of the past month and a considerable shortage of labour, there was a fine assemblage of flowers in the competitive classes, and in the two amateur, the single bloom, and the new varieties sections there were good entries and keen competition.

The outstanding feature of the show were the flowers sent from Cornwall by Mr. P. D. Williams. The twelve that won him the Engleheart Cup were one of the best, if not the absolute best, twelve that have ever been staged in the British Isles. One might be tempted to say that the pure white Leedsii on the top row, or the refined bicolor trumpet at the end of the middle one, or the four grand deep red cups and eyes, are "the last word" in their respective types, did one not know how dangerous it is to prophesy. Mr. John Jones, who many will know as Mr. Eckford's right-hand man, and who has been with the firm all its life, having come to Wem with the old Sweet Pea King, came to see my flowers last Good Friday, and in the course of conversation he told me how, many years ago, at Shrewsbury Show old Mr. Laxton exhibited a "blue" Sweet Pea and informed everyone that it was "the last word." History has proved him wrong. It would almost certainly put me in the same boat if I were rash enough to say the same of this wonderful twelve, for events are moving apace in the seedling community, and the top-dogs of one year are very likely to be outclassed when the next arrives.

Mr. A. M. Wilson and Messrs. Barr and Sons have had the floral factories working under skilled experts for many years, and they are able to turn out many very high quality blooms every year. As I am confining my remarks this week to the competitive part of the show, I can only congratulate the latter (Messrs. Barr) on their gold medal. They put up a fine exhibit. Mr. Wilson's twelve that won him the silver-gilt cup of the Royal Horticultural Society for flowers raised by the exhibitor were a good lot, but somehow I was more attracted by those which won him the first prize in Class 3.

The incomparabilis is a section which lends itself to effective display, and when such a master in the art puts forth his best, one can be sure of something striking. The almost pink-edged 727, with its good, rich-looking white perianth, was a very uncommon and high quality flower. Personally, I am most keen on the more or less out-of-the-usual styles of Daffodils, those, for example, which come under the following sections: V. (Triandrus hybrids), VI. (Cyclamineus hybrids) and VII. (Jonquilla hybrids). Mr. Wilson staged an



FIRST PRIZE GROUP IN CLASS VI., CONSISTING OF TRIANDRUS, JONQUIL AND CYCLAMINEUS HYBRIDS.

It was staged by Mr. A. M. Wilson at the R.H.S. Daffodil Show, and shows the variation of form in the Daffodil family.

interesting collection, in which the majority were delightful Jonquil hybrids shown under number. Everyl, the bottom right-hand flower, is one of the cyclamineus hybrids, and makes an excellent little rock plant; while Dawn, in the centre of the middle row, is a delightful flower with its volently recurving perianth and flat lemon eye. The Editor has honoured White Mere, which is Leedsii (4A) of great refinement, by having its photograph taken. On page 3 of the 1915 "Daffodil Year Book" it is called "one of the most beautiful and distinct flowers seen" that season.

My selection and short descriptions of what I conceived to be the best blooms, and my comments on the trade groups and some individual blooms, must leave till my next notes.

MISS LAWRENCE'S ROSES

READERS of THE GARDEN should be grateful to "White Lady" for giving us on page 146, issue March 25, such a delightful account of the charming Roses once so well known, but now so little cultivated. Would that one could learn where the lost varieties could be found! Like "White Lady," I have searched for them in catalogues and have turned away disappointed. The disappointment is now all the greater after reading "White Lady's" delightful article. Little can be added regarding their origin, but Mrs. Gore in her "Rose Fancier's Manual," published by Colburn in 1838, adopts the view that they were "natives of the Isle of Bourbon, where they were obtained by cultivation, or perhaps from China." Loudon gives the date of introduction as 1810, and refers to Sweet as the authority, giving China as the place of origin. "White Lady" quotes Mr. William Paul as living in his "Rose Garden" a list of nine varieties. Mrs. Gore names and describes twelve. The first of these is "The Single Lawrence Rose." This is "from 3 inches to 6 inches high, forming a close bush." The flowers were pink. The next is the "Dwarf Lawrence Rose or Lawrence of Chartres." It is described as from 2 inches to 4 inches high, with very double flowers of pink and the size of a shilling. The third is the "Double Bengal Lawrence." "It is larger than the preceding and less bushy." The flowers are "very small, full; of a deep lilac pink." No. 4 seems a doubtful one. It is the "Bengal Pompon; Dwarf China Rose," and from 1 foot to 2 feet high. The light pink flowers are semi-double. No. 5 is the "Unguiculated Lawrence Rose; Lawrenceana Unguiculata." It is 4 inches or 5 inches high, with very double, bright red flowers the size of a shilling, in clusters. "Lawrenceana Fouche" is 3 inches or 4 inches high, with small, flat, well-formed flowers which are flesh coloured. The "Caprice des Dames, or the Lady's Whim" of Mrs. Gore, 5 inches or 6 inches high, had red purple flowers. That of Mr. Paul is described by "White Lady" as rose. "Belle Lilliputienne" is probably minima of others. It is said to be very small, and the flowers "extremely small, all and vivid pink." The "White Lawrence Rose" has small, full flowers of white, slightly tinged with flesh colour, but no indication of stature is given. Of the "Bi-coloured Lawrence Rose" we are informed that the flowers are small, full; pink, spotted with lilac." The "Crimson Lawrence Rose" has flowers which

are "very small, double or full; of a deep crimson," and, finally, we have "Lawrenceana à Rameaux Horizontaux," which has small flowers "fragrant; of a bright flesh colour."

In 1844-45 a leading firm of Scottish nurserymen offered, under the name of "Rosa Lawrenceana, Miss Laurence's Fairy or Miniature China Rose," ten varieties. These included Caprice des Dames, Lawrence de Chartres and Lilliputienne of Mrs. Gore; with Gloire de Lawrenceana, Fairy and Retour de Printemps of those named by "White Lady." The others were La Lapone, brilliant pink; multiflora, pink, very small, and an abundant bloomer; nigra, very deep crimson, small and handsome; and pallida, white, changing to flesh colour. Possibly the latter may have been Mrs. Gore's alba.

I am grateful to your contributor for once more drawing attention to a charming class of Roses, some of which may have been too tender for general cultivation, but which could possibly be accommodated in our rock gardens of the present day. Would that we could recover a few more of these old varieties of Miss Lawrence's Roses from old gardens in which they may still exist! SCOTCH ROSE.

FLOWERING SHRUBS FOR HOT SOILS

IN many gardens the natural soil is so hot and dry that the ordinary flowering shrubs refuse to grow, or, if they do exist, they only form miserable specimens that are a perpetual eyesore. A race of flowering shrubs that is but little known is the Cistus family, various members of which will soon be producing their lovely crimped-petalled flowers in profusion. These shrubs are adapted for a hot garden, as they will live and thrive in positions where the majority of shrubs would perish. Their culture is simple, providing the soil is warm and rather poor, and for filling in beds or blank spaces in somewhat sheltered borders they are most valuable. Propagation is readily effected by means of seeds, which should be sown in early spring in a warm frame, the seedlings being potted up singly into small pots in soil containing a good proportion of sand and peat, and then gradually inured to cooler conditions. In the autumn the plants may be transferred to their permanent quarters, but a better system is to keep them in cold frames for the winter and plant them out the following spring. They are also propagated by means of cuttings and layers, but seedlings are usually more satisfactory. The best-known Cistus is the Gum Cistus (C. ladaniferus), which has



WHITE MERE.

A very refined and distinct giant Leedsii with an absolutely flat, imbricated perianth and a long, narrow cup. Quite a new type. Second prize in the single bloom class.

large white solitary flowers. A beautiful form of this is known as maculatus, and differs from the type in having a dark blood-coloured spot at the base of each petal. The Laurel-leaved Cistus (C. laurifolius) has white flowers with a yellow blotch at the base of each petal. A plant that is of economic value, and has beauty, too, is C. creticus, a native of Crete, with purple flowers, yellow blotched at the base. This produces the resin known as labdanum, and used during the Plague as a medicine, but at present its chief value is as a perfume. To collect it the plants are beaten with thongs, to which the resin adheres. The one weak point about these Cistuses is that the flowers are soon over, the individual blooms seldom lasting more than two days, but others quickly take their place. These plants are often alluded to as Rock Roses; but this popular name really belongs to an allied family known botanically as Helianthemum, of which the pretty little yellow-flowered British Rock Rose (H. vulgare) is the principal member. Nurserymen have during recent years given us some beautiful varieties of this, the colours of which include various shades of orange, crimson, scarlet and white, besides several sorts with double flowers. These plants will grow and thrive in the

hottest and poorest position in the garden, and as they only attain a height of from 8 inches to a foot, they are excellent for the fronts of borders. A beautiful effect is obtained by planting the Cistus at the back of the border, and so form a background for the dwarfed Rock Roses. The latter are usually propagated by cuttings taken in August and rooted in a cool frame.

CAMPANULA PUSILLA MISS WILLMOTT

IF there is one little Harebell which is more popular than all the rest, it is *Campanula pusilla* Miss Willmott. On several occasions we have drawn attention to the merits of this charming, low-growing *Campanula*,

HINTS ON VEGETABLE CULTURE

By EDWIN BECKETT, V.M.H.

IN all probability there has never been a time in the history of our country when people needed so much to be engaged in this important branch of horticulture—vegetable cultivation. I am not so much in favour of utilising every particle of pleasure ground for the purpose of cultivating the various kinds of vegetables, but I am more concerned as to the use to which the many idle plots one meets with nearly every day in various parts of the country will be put.

Fortunately, the past winter has proved to be an exceptionally mild one; consequently many of the

so far as possible, to take out trenches for nearly everything which is likely to benefit by such treatment, and to grow shallow-rooting crops between. Here we raise an unusually large number of early crops under glass, which has proved again and again to be of material advantage on our heavy, cold land. During the next three weeks to a month we expect to be busy getting them into their final quarters. These include several sowings and varieties of Peas, Broad Beans, Onions of sorts, Leeks, Parsley, Cauliflowers, Brussels Sprouts, Cabbage (both red and green), Vegetable Marrows, Celery and so on. I am convinced that when treated in this way the anxiety attending the cultivation of these early crops outside is very much lessened and the success of the crops practically assured.

It behoves all cultivators, from the cottager to the market gardener, to see that every foot of ground is fully occupied with some crop or another, and no pains should be spared to produce the fullest return for the coming autumn and winter.

I was much interested in a lecture recently given in Elstree by one of our most eminent farmers, who for many years past has devoted much time and care to the cultivation of vegetables. He very strongly emphasised the fact that to be successful—and there is no doubt as to his success—deep cultivation must be insisted upon, a liberal supply of inorganic manures must be forthcoming during the growing season, and every opportunity taken of keeping the surface soil well stirred. This is, no doubt, sound common sense. The gentleman to whom I refer is not only a most practical tiller of the land, but possesses also sufficient scientific knowledge to ensure his meeting with the success which he has undoubtedly gained.

A PROMISING CAULIFLOWER: STANDWELL

Good varieties of Cauliflower are none too plentiful, and those who find the ordinary autumn varieties of the "giant" type a trifle too

late in the season should make a note of the above. Certainly, the raisers have ample justification for all the merits they claim for Standwell, as four seasons' successive trials, from seeds sown at various times from January until nearly mid-summer, have proved that not only is the name thoroughly descriptive of the variety, but in it we find each of those other qualities we look for in a good Cauliflower, one of the best of them being that notwithstanding its large size and heavy weight, the heads are borne upon very dwarf stems, well protected from the sun. The large, extra fleshy leaves, which I have noted distinguish the variety from most others, grow much more erect than we usually associate with Cauliflowers. This enables planting to be done more closely than would be wise for many others. Seeds sown on May 13 in the open air gave us grand heads throughout September, a sowing ten days later forming a good succession.

F. R. CASTLE.



CAMPANULA PUSILLA MISS WILLMOTT IN THE ROCK GARDEN.

which bears a profusion of flowers of the softest silvery blue shade. It is admirably suited for making drifts of colour in the rock garden, and if grown in pockets it will quickly spread over the surrounding rocks covering them with masses of dainty flowers as shown in the accompanying illustration. It also makes a charming crevice plant on old walls, while it is one of the most effective plants we know for the paved garden. We remember seeing it between the flagstones in a paved Lavender walk a few summers ago, when it created one of the most pleasing effects in grey and blue that we have ever seen. It may be raised from seed, although the better plan is to procure a few plants, for they quickly spread and soon come into flower. Like most other alpine *Campanulas* it appreciates a little lime rubble, for it is on limestone formation that many of the dwarf *Campanulas*, like our native Harebell, for instance, grow freely and flower in wild profusion.

"green" vegetables are fairly plentiful, although in nearly every case they command high prices, but roots more particularly so, especially Onions and Carrots. During the season of 1915 the Potato crops were, fortunately, good, but sound samples at the present time command high prices. Strange to relate, King Edward is undoubtedly the most popular variety of the day, although I am inclined to think there are many others superior to it in quality. Few of us, I suppose, can claim to have our work in this department well in hand. Add to the shortage of labour the unusually wet winter and spring, and we have an explanation of the formidable arrears of work which we shall have to make up.

I am bound to confess that this is the first season out of many I have had to give up the idea of trenching, but as the ground has been deeply worked for many years, I venture to think the crops will not suffer to any extent. I intend,

GARDENING OF THE WEEK

FOR NORTHERN GARDENS.

The Hardy Fruit Garden.

Disbudding Wall Trees.—Disbudding should be carefully followed up as soon as the shoots are sufficiently forward. The growths towards the top of the trees will be found the most advanced, and these should be gone over first. Great care is necessary in disbudding, as the future balance of the tree depends on the correct distribution of the shoots at this season. The fruits on the most advanced trees should also be further thinned out, and the ground round the roots of each tree should receive a coating of artificial manure and be lightly forked or raked on the surface.

Mulching.—Recently planted fruit trees, if suffering in any way from drought, may be greatly assisted by giving a fresh mulch of well-decayed manure. A good soaking of water at the roots before placing on the mulch will also help to bring the trees through a critical period.

Hoeing.—The hoe should be in frequent use among the fruit trees and bushes. A medium dressing of superphosphate should be applied to established trees, which will greatly assist them in swelling and maturing their fruit.

Strawberries.—The early varieties of Strawberries in some low-lying districts are frequently destroyed by frosts, the damage being done when the plants are in flower. To avoid this, a temporary framework should be erected, on which can be stretched two or three thicknesses of old herring net or a light scrim at night when frost threatens. A soaking of liquid manure at this date greatly assists the plants to swell the fruits to full size.

Planting.—The later batches of forced plants that have not been subjected to much artificial heat may be planted out on well-manured ground. These will sometimes provide a few late fruits in autumn, and will give a full crop next season. If the soil is dry for a time after planting, they may require a soaking of water, as the balls being a mass of roots, the plants may suffer readily from drought.

Fruits Under Glass.

Young Vines.—Plants raised from eyes in February for planting out should receive a shift to keep them growing on steadily, preparatory to planting them out in their permanent quarters next month. Growers who prefer planting canes of their own growth frequently start the eyes on squares of turf. This is generally a very successful method, as they can be transferred to the prepared border without receiving any check. It is essential to have the soil in good condition and thoroughly warmed before planting out.

Pineapples.—Fruiting plants that were potted on some time ago will now have their pots well filled with roots, and in this condition regular stimulants may be given them. If too many suckers appear, these should be reduced to two, or three at most. Frequent dampings of all surfaces and early closing of the house should be observed.

Figs.—The earliest crops should now be ripening, and as soon as all the fruits are gathered the trees should receive a good wash with the syringe and plentiful supplies of water at the roots. Regulate and tie up the young growths, and if these were pinched as previously directed, a second crop of fruit should soon be on the way. Attend regularly to stopping all subsequent growths when they are about 6 inches long, as next season's first crop depends much on these details being carefully observed.

The Flower Garden.

Mildew on Roses.—Some varieties of Roses, particularly the rambles trained on walls, are very liable to attacks of mildew, and if this is not checked in time the plants will be defoliated and the blooms crippled for the whole season. On the first appearance of mildew, or even anticipating it, the plants should be sprayed with one of the advertised mildew specifics. Green fly is almost sure to make its appearance, too, especially on the walls, and for this a spraying with Quassia generally proves an efficient remedy.

Anchusa italica.—This provides one of the finest subjects in the flower garden among blues, and can be had in flower for quite a long time if

provision is made for a succession. Proving as it does doubtfully hardy, the plants should have some protection during the winter; a mound of coal ashes placed over the crowns will serve in most winters. The plants then start early into growth and provide a wealth of lovely blue at the beginning of summer. Cuttings taken from side growths and placed in cold frames during autumn ensure a good stock for planting out. Should the winter prove too severe for those out of doors, root cuttings or thongs from the fleshy roots, made in the same manner as those used for propagating Seakale, should also be put into cold frames in autumn, and these will provide a later batch of flowering plants. For continuing the flowering period of this lovely plant from early summer till late autumn, Dropmore, Opal and Pride of Dover are all good varieties differing but slightly in habit and shade of colour.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

FOR SOUTHERN GARDENS.

Plants Under Glass.

Richardias, or Arum Lilies.—Plants which have finished flowering should be arranged in a cold house or pit to be hardened off gradually, when towards the end of the month they may be placed in a sheltered spot outside. There is a difference of opinion among gardeners as to whether the plants should be dried off or planted out in the open ground. Personally, I favour the former method, and good results have always followed such treatment.

Camellias that have finished flowering will commence to make new growth. They should be sprayed over frequently, and a congenial atmosphere maintained until their growth is finished. Alternate waterings with weak liquid manure or soot-water will be beneficial. Later on they must be given more airy treatment, and afterwards stood in the frame ground.

Campanula pyramidalis.—If not already done, seeds of both the blue and white forms must be sown in boxes of fine soil. Prick off the seedlings when large enough, and gradually expose them to more air preparatory to being planted out on a warm border already enriched with manure.

The Flower Garden.

Pentstemons.—These plants have become more popular of late years, and large batches are raised annually from seeds and cuttings. The present is a suitable time to transfer them to their flowering quarters. They appreciate good treatment, but as a general rule they will succeed in any ordinary garden soil or any situation, except in dense shade. Give the plants ample space to develop, but a foot apart will suit the majority.

Bulbs.—These should be examined occasionally and all the dead flowers removed to prevent the formation of seed-pods, which would naturally weaken the bulbs. They must remain in the beds until the end of the month, while the late-flowering Tulips may be lifted about the third week in June.

The Kitchen Garden.

Early Potatoes.—These will need to be closely watched, at least until the end of the month, as we may get a frost, which would prevent securing an early supply. Those that are well advanced should be earthed up without further delay, and any just through the ground may be covered with a little soil, which would be sufficient to protect them from frost. A little tiffany, litter, or any light material may also be used.

Turnips.—Make occasional sowings until the beginning of August, selecting, if possible, showery weather for the operation. If the fly is troublesome, give a moderate sprinkling of wood-ashes or soot.

Beetroot.—Make the main sowing of this desirable vegetable, selecting such as Dell's Crimson.

Tomatoes.—Plants for the open ground must now be placed in cold frames, and after a few days the lights should be removed whenever the weather is favourable. Attend to staking and rub off all

side shoots. The plants will require plenty of water, and may be given liquid manure twice or thrice each week.

The Hardy Fruit Garden.

Peaches and Nectarines.—The protecting material should now be dispensed with, and in most instances a good set of fruit will be secured. Where the crop is a heavy one, some of the fruits should be removed at once. All those at the back of the branches and beneath may be taken off first. Continue the work of disbudding, and overcrowding must be guarded against.

T. W. BRISCOE.

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Castleford, Chepstow, Gloucestershire.

FLORAL MEMORIES OF
MATTHEW ARNOLD.

BY THE REV. DAVID R. WILLIAMSON.

WHEN I went to visit Mr. Matthew Arnold, the greatest of all my literary friends, at Pain's Hill in Surrey, I usually found him earnestly engaged in the art of horticulture. One could easily have anticipated this from an intimate acquaintance with his poems, and especially his immortal "Thyrsis" and "The Scholar Gipsy." Like Tennyson, whom I only knew by correspondence, he was intensely fond of flowers. In one of his many kind letters to myself, he says: "I am not aware that I have ever mentioned the Snowdrop in my verses; but I have been planting it about my shrubberies, and admire it greatly." Soon afterwards, however, I had the satisfaction of quoting to him the following lines from his "Tristram and Iseult," a poem in which the most admirable simplicity is combined with emotionality:

"Who is this Snowdrop by the sea?"

I know her by her mildness rare,
Her snow-white hands, her golden hair;
I know her by her rich silk dress,
And her fragile loveliness;
The sweetest Christian soul alive,
Iseult of Brittany."

I have an idea that the humbler beauties of the field, such as the Wood Sorrel and the graceful Geranium Robertianum (of the former of which, he once told me, he was extremely fond), were those which the "Poet of light and sweetness" loved the best. Niphetos was, in those days, his favourite Rose, though there were others that he almost equally admired, such, for example, as Duke of Edinburgh and Beauty of Waltham, natives of Cheshunt and Waltham Cross; Charles Lefebvre, and the beautiful and fragrant White Bath Moss Rose.

It has been observed by cultured florists and naturalists who have read Mr. Arnold's great Grecian drama entitled "Meropé," almost worthy of Euripides, which has been characterised by Swinburne as "A work of severe and sustained success," that there is not a single flower delineated in the pages of that remarkable poem that does not grow in Greece. This intense conscientiousness is expressive of all his inspirations, and reaches its culmination in that most Homeric of all his poems, "Sohrab and Rustum," perhaps the nearest approximation to the spirit of Homer discoverable in our literature.

The following memorable passage, descriptive of the exquisite flowers of midsummer, occurs in his "Thyrsis," a marvellously impressive poem,

to the memory of his gifted friend, Arthur H. Clough. Addressing the early departing cuckoo, he sings :

"Too quick Despairer, wherefore wilt thou go?
Soon will the high Midsummer pomps come on;
Soon will the musk Carnations break and swell;
Soon shall we have gold-dusted Snapdragon,
Sweet William, with his homely cottage smell,
And Stocks in fragrant blow;
Roses that down the alleys shine afar,
And open, Jasmine-muffled lattices;
And groups under the dreaming garden trees;
And the full moon, and the white evening star."

The Crocus, the Bluebell, the white and purple Fritillaries (which grow quite luxuriantly in the Oxfordshire fields), the Primrose, the Narcissus, of which one of the latest and loveliest in the "Poetic" section now bears his name; and many other familiar wayside and woodland flowers, glorify on almost every picturesque page the inspirations of his Muse. What could be more expressive than the picture so musically depicted in a single line :

"Dark Bluebells, drenched with dew's of Summer
eves" ?

Seldom indeed in the fair domain of English poetry have the singer of Nature and the poet of culture been so grandly combined.

Shortly after the sudden death of Mr. Arnold, I wrote the following stanzas, in a moment of intense emotionality, to his memory :

"Singer of English birth, of Grecian heart,
For ever from our presence passed away,
Leaving to men the greatness of thine Art,
To lead them upwards to a larger day;
I cannot comprehend that thou art gone;
Still do I feel thy fervent hand in mine;
Thy gracious form is near, yet greater grown;
For Death has made thine aspect more divine.

O sweet Consoler of each sorrowing life,
That, 'midst its darkness seeks the light of God;
Assured that thro' this aimless, earthly strife,
No path is peace, save that which Love has trod;
How fondly did'st thou linger o'er the dead,
And bless the loved ones in their lonely grave;
While thy meek Muse a fadeless fragrance shed,
Around the memories of the pure and brave!

The reverence of that Spirit which did raise
From death a mortal friend, abode in thee;
Now that thou art beyond all reach of praise,
May Christ, Who died for men, thy comfort be!

Soft be thy sleep, O lover of mankind,
Far from those storms that rave around us here;
For when thou dost awake, thy soul shall find
That Love whose strength has conquered every
fear!"

EDITORIAL NOTICES

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

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SOCIETIES

THE MIDLAND DAFFODIL SOCIETY'S SHOW.

IT is only stating a plain, bare fact to say that "Birmingham" has been in the past, and still is, the leading Daffodil show in the world. It is a large claim to make, but I feel certain that, by those whose opinion counts, the statement will be allowed in full. Actions speak louder than words. The Rev. G. H. Engleheart, who, unfortunately for all lovers of the Daffodil, is not enjoying the best of health, was saving himself for this exhibition, and fully intended to occupy his old position on the west side of the committee room; but, alas! it was not to be, and on April 27 he had to send me a letter, which must have cost him something to write, and from which I quote the following: "I couldn't come up to the scratch after all; not very fit the last few days. . . . Just that I may have a flower in the show, I send a Leedsii or two of our newest lot. Even in this weather you will see they have much stiffness and substance."

Four magnificent blooms arrived early in the afternoon of the second day. One was hurried off *instantly* to have its photograph taken with a view to its figuring on a coloured



MR. CRANFIELD'S PINK-EDGED GIANT
LEEDSII, MISS E. M. BOWLING.

lantern slide for the lecture on "The Development of the Daffodil" which I am down for at the Royal Horticultural Society on the 16th of this month. This ordeal over, it joined its travelling companions in forming a true *multum in parvo* exhibit in a small gap that might have been left on purpose between the incomparabilises and the two Barri groups. There were three flowers of the purest Eucharis white—giants in size, gentlemen in their bearing, and, if one may take a simile from finance, absolute Rothschilds in their substance. The largest of the three varieties measured a good 5 inches from tip to tip of the perianth. The fourth bloom had a distinct pink tinge, and had it not been that there happened to be a July sun at Dinton when it was expanding, the colour would have been "quite a pretty rose pink." As it was, the charming flower from Mr. Cranfield stood alone in its blushing beauty. The illustration will show the absolutely flat imbricated perianth and the rather long pink ruffle-like edged cup of Miss E. M. Bowling. It had such a nice, clean, prim look that I am sure were it a human it would be certain to have a good spring cleaning, even were the German guns within earshot. Unfortunately, Mr. Cranfield is lying ill at home and he could not see the success of his seedling, which gained the first prize in the Giant Leedsii single bloom class. It is the result of a cross between the delicious Anthea and Lord Kitchener. I hope my friend will soon be about again; it is hard luck for a Daffodil man to be laid up in Daffodil time.

After these Leedsii mention must be made of a wonderful bloom called Fortune. It is the last word in red-cupped giant incomparabilises, and was the centre of attraction in the first prize twelve, staged by Mr. Walter Ware for the Bourne Cup. The old war-horse had scented Daffodils in London the previous week, and notwithstanding his resolution to keep out of things until he felt himself stronger and better, his visit to Vincent Square was too much for him, and enter he must for the blue ribbon of Birmingham. My sincerest congratulations to him on his pulling it off and defeating such a competitor as Mr. A. M. Wilson. It is something to the credit of the Midland Show that it can attract such men as he from their enforced retirement. May I hope no ill results have manifested themselves, not only in his case, but also in that of the grand old veteran, Mr. George Stocks of Doncaster. He, too, had to come. The Daffodil is a most powerful magnet, so stop quietly at home and nurse himself he could not when the call came from Birmingham. I am glad he saw the show, and I congratulate him on carrying away the Silver Rose Bowl in Class 57. Fortune is a large, striking flower with a yellow, somewhat pointed perianth and a bold, glowing red cup with a curious thick-looking top, in which the colour is much more intense than it is towards the bottom. The diameter of the perianth measured 4½ inches, and that of the red corona 1½ inches. A very brief summary of the prize-winners must suffice.

In the Group A open classes for a collection of fifty varieties and for threes, sixes or nines of the different sections, Miss Wilson won one first prize, Mr. A. M. Wilson one, Mr. C. Bourne six and myself five, including the "fifty" (Class 1). I have turned up my old schedules, and I find I was the winner of this same class at the first show of the society in 1899; but whereas there were six groups staged in 1916, there was but one seventeen years ago.

In the single bloom division Mr. Herbert Chapman and Mr. A. M. Wilson each scored three wins; Mr. W. B. Cranfield and Dr. Lower, two each; and Captain Hawker, Mr. Cave and Mr. Copeland, one each. Crimson Braid (3b), Miss E. M. Bowling (4a), Venetia (5) and Dulcimer (9) were the flowers I would pick out as the ones to underline as being especially noteworthy.

In the new section the Bourne Cup was won by Mr. Walter T. Ware. Included in his twelve were Fortune, already mentioned; Pax, a distinguished-looking Giant Leedsii with a somewhat drooping poise; and Sumerin, a yellow Ajax with a perianth like a double triangle and of such a deep, dark shade of yellow that Buttercup looked quite pale. I do not think even the experts realised what a depth of colour was there. It astonished Mr. Mudge of Barr's when compared, at his suggestion, with the other deep-dyed blooms, and found Sumerin an easy first; Mr. Wilson was a close second. In racing parlance the verdict would have been "won by a head." With the sole exception of Elfin, all his blooms were under numbers; but 181, a splendidly refined 3b (or possibly 4b) which reminded me of White Star; 926, a pure white Leedsii with a good-sized eye "as flat as a pancake"; and 333, with a long chalice-shaped cup of a deep rich apricot yellow with a paler shade round the brim, were remarkably good flowers.

The names of Dr. Lower, Mr. Wilson, Miss Wilson, the Rev. J. Jacob and Mr. Chapman occur as prize-winners in this group, but special mention must be made of Mr. C. L. Adams, the esteemed treasurer of the society, known to many as the raiser of King Cup and "the man in the ditch." "The proof of the pudding is in the eating." My friend's original method of cultivation has so abundantly justified itself as a *bene esse* in the piping times of peace that an account of the system will appear in the 1916 "Daffodil Year Book," while in wartime, were we to adopt it, it would save a good deal of trouble if we ever had to entrench ourselves in our own special "Cabbage patch."

The advanced amateur group was well filled, and in the majority of the classes competition was keen. Miss Warren, Mr. H. R. Darlington, Canon Fowler, the Rev. T. Buncombe, Mr. T. Batson and Mr. G. Stocks all won firsts, and some of them as many as three and four. The Barr Daffodil Vase went to Mr. Buncombe, with Mr. T. Batson as runner up.

In the beginners' section most classes filled; unfortunately, when I got there with my notebook, most of the cards had been removed, so I have to leave the prize-winners here in oblivion, but it will not be long before some of those who got firsts come into the limelight; for example, Mr. G. Stocks and that keen grower and seedling raiser, Mr. J. H. Padley, were in it only last year, and it was here that Dr. Lower first put his foot on the rung of fame.

I must leave a detailed description of the best varieties according, as my late gardener used to say, "to my foolish opinion," to another time. I have the records safe in my notebook. By the way, note takers have a wonderful power of good in their hands. I never realised it until a certain Royal Engineer Lieutenant, on the first day of the show, graced the hospitable tea table of his "uncle," Mr. Thomas Humphreys, with his presence. As an Engineer he knew how to build a bridge and blow up a house, but (so he said) he did not know a Dandelion from a Daisy. However, as he observed the notebook habit in strong evidence among the visitors, to be in the fashion out came his doctor's bill, as the only paper available, and on the back thereof he made notes. That precious document I have now in my possession (I took care to see the bill has been paid), and I found the effort of note taking had taught him much. He recognised Messrs. Barr and Sons' grand gold medal exhibit at the far end of the concert hall as one of Daffodils, and he did not make a very bad shot when he put Gladiolus down first, although I would like to add St. Hya, Dororis, St. Senara, Minerva and Whisper.

THE GARDEN.

No. 2324.—VOL. LXXX.

JUNE 3, 1916.

NOTES OF THE WEEK

THERE was a good attendance at the annual general meeting of the Kew Guild, held on May 24, the second day of the Chelsea Show; but it was in many ways unlike the gatherings of years gone by. Over 100 members of the Guild are now serving with His Majesty's Forces, and three—Messrs. C. F. Ball, H. J. Longhurst and W. H. Morland—have fallen in the service of their country. No dinner was held this year, but the meeting was preceded by a tea in the Lecture Hall of the Chelsea Physic Garden. Many ladies were present, including Miss Smith, the Lady President. The new members of committee are Messrs. E. J. Allard, J. W. Campbell, A. D. Cotton and J. Marks. Mr. J. Coutts was re-elected treasurer, and Mr. A. Osborn secretary. In addition to the annual publication of the Journal, the Guild continues, as far as it is able, to do excellent and practical work in making grants to deserving aged and infirm Kewites.

The Spring Garden at Munstead Wood.—The illustration on this page shows a glimpse within a garden that is known to many of our readers. It is a corner in Miss Jekyll's delightful old-world garden at Munstead Wood, where Tulips, Iberis, Myosotis, Wall-flowers and Sweet Cicely are grown together in perfect harmony and good taste.

The Fream Memorial Prize.—The Board of Agriculture and Fisheries have awarded a Fream Memorial Prize of the value of £7 2s. 3d. to Mr. Robert C. Broadfoot, Nether Cairn, Kirkconnel, Dumfriesshire, a student of the West of Scotland Agricultural College, Glasgow, who obtained the highest marks in this year's examination for the National Diploma in Agriculture.

British Red Cross Sale of Plants, Bulbs and Horticultural Objects.—The Great Red Cross Horticultural Sale, which is being organised by the Royal Horticultural Society and will be held in the hall at Vincent Square on June 28 and 29, has received the gracious recognition of Their Majesties the King and Queen, who have most kindly consented to be patrons.

Trial of Autumn-Sown Onions at Wisley.—The Royal Horticultural Society will carry out a trial of autumn-sown Onions at Wisley during

the ensuing season. Seeds for trial (one packet of each variety) should be sent so as to reach the Director, Royal Horticultural Society's Gardens, Wisley, Ripley, Surrey, from whom the necessary entry forms (one for each variety) may be obtained, on or before Monday, the 19th inst.

Early Cabbage Flower of Spring.—This early Cabbage is increasing in favour in the South-West of Scotland, and is finding general approval for its earliness and good quality. In many of the best gardens it is much favoured, and, late as the season has been, it was being cut at the end of April and in the first week of May, even in the colder districts of Dumfriesshire and

Carrots, Lettuce, Beetroot and other vegetables for this year's use. Last year we recorded excellent crops of vegetables at Reading from seed sown on the last day of July. Incidentally, the frost on the night of May 26 has damaged Potatoes over wide areas in Cheshire and other counties. Shortage of labour on farms and in gardens and the difficulties of obtaining imports make the food question more acute than ever, and we urge readers to increase the output of vegetables as far as they are able and before it is too late.

An Ingenious Bowl Arrangement.—To those who grow bulbs and other plants in bowls without drainage, the following novel and very pleasing arrangement will be useful to be put down to be tried another year. In a 10-inch or 12-inch bowl plant a clump of *Spiræa* Queen Alexandra in the centre, and round it, about 1½ inches from the edge, a row of the bright red-cupped Daffodil Lucifer, or, if there is sufficient room, a double row zigzagged one with the other. The flowers look very pretty with their setting of feathery leafage, and then when faded they can be cut away and a second display of the plumes of the *Spiræa* will follow. Plant both bulbs and clump at the same time.

Foliage for Tulips in Vases.

Theoretically, every flower looks best in vases when arranged with its own foliage. In practice there are numerous exceptions, for, when all is said and done, we must remember that it is an unnatural way for a plant to show its supreme beauty to the world. The new conditions seem to demand

in many cases new greenery. After this little bit of what we may call theory, we would like to say how well the foliage of the common Solomon's Seal suits the blooms of Tulips. To those who grow these flowers for cutting, we would advise the planting of a patch in some inconspicuous place for cutting from. On May 16, at the Royal Horticultural Society's fortnightly show, Messrs. R. H. Bath of Wisbech had their Tulips arranged with this greenery, and it looked very well.

*** Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.*



IN THE SPRING GARDEN AT MUNSTEAD WOOD.

Kirkcudbrightshire. It hearts well and is of excellent flavour.

Increasing our Food Supply.—We cannot urge upon our readers too strongly the importance of growing vegetables to the utmost capacity of the garden. It is too much to expect the whole of the flower garden to be devoted to the growing of vegetables, but many flower beds and portions of flower borders might be given up to vegetables, and we have already referred to the practice of growing Cabbages between Roses, which has met with success in many gardens. Although the season is well advanced, it is not too late to plant Potatoes, or sow Peas, Runner Beans,

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Daffodil Diseases.—In examining some bulbs on May 20, I found under the top scale in two cases small pure white spots, which under the pocket lens looked as though they might be the source of fungoid growth. The surface on which these white spots were was "gummy" to the touch. The white spots were of irregular shape and fairly firm to the touch, but easily broken up.—C. LEMESLE ADAMS, *Pendeford Hall, Wolverhampton*.

Pheasants and Bulbs.—In this garden the pheasants are so destructive to Tulip bulbs that we are obliged to net the beds. Even so, we see them from the windows trying to get through the nets. Last year one old cock pheasant was so active that I offered my son 2s. 6d. if he would bring him in alive or dead. Within an hour the boy appeared with the bird under his arm, caught in the net. The bird was quickly despatched, and in his crop were two whole Tulip bulbs, besides several fragments. We planted the bulbs again and they flowered in due course. I enclose a photograph of a corner of the garden. Five years ago it was an old dog yard and chicken run.—F. BLOIS, *Cockfield Hall, Yoxford, Suffolk*.

— Our experience of these is very different to that of Miss Hussey-Freke. We have quantities of Darwin Tulips of all the best sorts. Last year the pheasants used to jump up and cut the heads off; whether trying to catch some sort of fly on the bloom or not I do not know. This year there are very few heads to cut off, as they now dig up and eat the bulbs, even when protected by wire-netting. They scratch underneath like rabbits, and nothing will drive them away. They do not care for man or dog, and, if driven off, soon return. Of course, they eat to the ground all Peas, both Sweet Peas and culinary, also Spinach, &c. I am not writing with a view to show my dislike to pheasants, but more to show their vagaries, as before the war we had ten times the number there are now, and they did no harm to speak of. On a farm they do good, particularly where there are leather-jackets, but, like peacocks, they are bad gardeners.—AUSTIN MACKENZIE, *Carradale, Argyllshire*.

Useful Household Vegetables. — "Anne Amateur" apparently considers that any vegetable which is grown for exhibition must necessarily be coarse and only second rate as an article of food; and further, judging by her latest observations, she is under the impression that in growing for exhibition we do not produce the same amount from a given plot of land. It was my privilege the other evening to visit some allotments, about twenty-one acres in extent, where several of the holders are growing vegetables with the intention of competing at the forthcoming show to be held at Richmond.

It needed only a casual glance to see which allotments would produce the heaviest and best crops. On the plots which had been deeply cultivated and ample room allowed for the crops to develop, one could see the prospect of good, heavy crops of serviceable vegetables, much superior in quality to those grown on the moderately worked land. When we as gardeners are told to lift our "short-sighted eyes," I think it is time to look around and ascertain how much of the practical part of the business the person has attained who is giving us this advice. I have read each letter of "Anne Amateur's" upon this question as they have appeared in THE GARDEN, and I must confess she has not yet convinced me that she has grasped the practical part of growing useful household vegetables. I have always been taught that to obtain the best results, both as regards weight of crop and the quality of vegetables, deep cultiva-

not speak well for the knowledge of the community when we find such good single Roses as Willmottiae, altaica and the like contemptuously referred to as "these wild Roses!" as one has heard said by many.—S. ARNOTT.

Gooseberry Caterpillars.—My experience with these pests is as follows: Some years ago my bushes were infested with caterpillars. There were some days' delay in attending to them, and I at length got some Hellebore powder, intending to treat the bushes with it. To my surprise I found in the meantime the caterpillars had nearly all disappeared, and I saw a blue titmouse flying away with one to its nest. A pair of these little birds actually cleared my bushes without our taking any further trouble.—J. H. W. THOMAS.

Scilla sibirica alba.—The laudatory note anent this little spring-flowering plant which appeared in THE GARDEN for May 20 is signed "E. A. B., Herts." I fancy the signature is only my good friend Mr. E. A. Bowles' writ small, and if so, as I know what a keen observer of small differences he is, it is difficult for me to fit in my estimate of the plant with his. I have grown it by itself and in a long line in alternate clumps with the old blue variety, and in neither case did it appeal to me. Perhaps there are several "forms" of it in commerce. This would account for our different opinions of *S. sibirica alba*, for I am quite sure that if there is a "better and a worser" form, it will be the former and not the latter that will be grown by "E. A. B., Herts." Have any readers noticed any variation? —JOSEPH JACOB.

Perpetual Carnations at Castle Milk, Lockerbie.—Carnations are leading features in the gardens of Sir Robert W. Buchanan Jardine, Bart., at Castle Milk, Lockerbie, and they are excellently cultivated. Among the whites, White Wonder is the most appreciated, being preferred to Matchless, White Perfection and Snowstorm, all of which are grown at Castle Milk. Among other favourites are Baroness de Brien, the

pretty rose Philadelphia, a promising cream-coloured seedling raised at Castle Milk but not yet named, the fine terra-cotta Bella, La Rayonnante, Mikado, Unique, Mrs. A. F. Dutton (which is too light coloured in winter, but is fine in May), Sunstar, Yellowstone (one of the finest of its colour) and R. F. Felton (rather pale in winter). Among others there is a nice stock of young plants of the new Violetta, which is a near approach in Carnations to the colour indicated by the name, with Cinderella, Britannia, Rose Doré, Empire Day, Mary Allwood and many others. Mr. Jeffrey, Sir Robert Jardine's gardener, is an expert in the cultivation of the Carnation, and the plants give evidence of the highest skill.—S. A.

The Origin of the Moorpark Apricot.—In reference to the note by "E. M.," issue May 20, page 243, I possess a history of Moor Park, Herts, published in 1871. It states that Lord Anson



A READER'S GARDEN IN SUFFOLK MUCH FREQUENTED BY PHEASANTS.

tion or trenching should be resorted to, and plenty of room allowed for the crops to develop; but according to "Anne Amateur's" teaching these methods are wrong if one desires vegetables suitable for household purposes.—EDWARD MONTAGUE, *Richmond, Surrey*.

Rosa Willmottiae in the South of Scotland.—Rosa Willmottiae is very charming in the garden of Mr. Robinson-Douglas at Orchardton, Castle Douglas. It is planted near R. Moyesii, which is also doing well, and the contrast between the dark flowers of the latter and the bright, yet soft pink ones of R. Willmottiae is very pleasing. Miss Willmott's Rose seems to flower freely here, and the beautiful foliage and attractive habit of growth make a picture one is unwilling to pass by without a prolonged study of the Rose and its points of beauty. It is amazing, however, to find that the number of admirers of single Roses, especially of the species, is so limited. It does

owned Moor Park from 1754 till his death in 1762. He made many alterations and improvements under the direction of "Capability" Brown, laying out the present kitchen garden, and introduced the Moorpark Apricot; the parent tree lived on till 1840.—GEORGE BENNING, *New Marston, Oxford.*

The "Daffodil Year Book."—If the suspension of the publication of the "Daffodil Year Book" is part of a general scheme for reducing the publications of the Royal Horticultural Society, I suppose the Daffodil world must not complain; but if the Daffodil world is the only section of the society which is to suffer during these times, it is up to the Council to justify its action by showing that other publications of the society which are to be continued justify their continuance both on the score of economy in production and of demand.—C. LEMESLE ADAMS.

—Mr. Wilks' letter, in your issue of May 27, page 251, seems to me to require explanation. I have no idea of all the details to which it refers, as *the Council keeps the entire management of the book in its own hands.* So far as I know, it has done nothing in any way to push the book or make it known in Daffodil circles, and then, because it has not sold so many copies as it thinks ought to have been sold, the Council complains and refuses to bring out any annual at the very time when of all others it seems most important to do so. Would any large publishing house bring out a book and do nothing to promote its circulation, but leave it on their shelves?—JOSEPH JACOB.

Record Crops of Apples.—Your correspondent "W. F. M. C.," in your issue of May 20, page 239, finds it hard to believe that a fruit tree can bear forty bushels of fruit. What will he say to seventy bushels from one tree? There is a large Apple tree growing here which in 1911 bore just over seventy bushels of good fruit. Care was taken to see what the crop was, and I have every reason to believe that the quantity is correct. In previous years it had borne forty and fifty bushels, and last autumn it had about fifty.

I am enclosing a photograph of the tree, but I very much doubt if it will be good enough for you to reproduce.—HERBERT GOATCHER, *Rock Nurseries, Washington, Sussex.*

Plants for Dry Soils.—Having a very hot, dry corner backed by a brick wall and faced by a paved brick path, beneath which are some 8 inches of sand, clinkers and stone, it may interest some of your readers to know which plants really seem happy under such trying conditions. Lavender, Cistus and Brooms are, of course, well known to adjust themselves to drought, but besides these I find the hardy Fuchsias and Pentstemons of Newry Gem types are equally happy. Lithospermum prostratum has made a strong clump in a few years. Lilium candidum even manages to make itself at home despite the fact that no water is given. Pentstemon couleri holds its own in a tangle of Cotoneaster horizontalis and hardy Pinks. Pyrethrums and Polyanthes complete the tale. The latter in the autumn seem baked to death, but recover

and flower well in the spring. Of all these the Fuchsias and Pentstemons are most valuable on account of their long flowering season.—E. A. BUNYARD.

Waste Land in War-Time.—The article by "H. C." in THE GARDEN of May 20, page 247, points out how scandalous it is to let waste land bring forth crops of Briars, Thistles, weeds, &c., when it might be giving good crops of vegetables. I was down in Surrey only a month ago, and there is in that county much land bought for building but remaining unused. Moreover, this is so in many other counties. Yorkshire is by no means an exception. Weeds are bred by the million—no; more likely by the billion—and are blown into gardens from these waste pieces. Something ought to have been done. Surely there is a society interested in using waste land all over England for growing food. Well, if there is, what is it doing? Very little indeed, because there is so much to do. I am glad to learn that some of the

the first class. To begin with, the tree attracts notice at once by its remarkably clean and smooth bark and its very upright and regular growth, the branches standing almost straight up, with a slight outward leaning, like pins in a big pincushion or the shoots of a well pruned and tended standard Rose tree. The fruit is of good size, sometimes very large, coloured and lined rather like Wellington; but the great point about it is that it keeps till "Apples come again," as the local people say, and now, seven months after picking, it is in its prime. Many fruits are still even green and hard, and at the beginning of April they would hardly cook; they were not ripe even then. Now they are in their prime, getting a nice ripe yellow tint, flavour delicious, very juicy and a distinct Pineapple taste. As a stewing Apple it is second to none; the quarters never break. It is a prolific bearer. From a standard about seventeen years old I picked, at the end of last October, 11 pots (a pot is 60lb.), that is nearly 700lb. of fruit. The harvesting,



AN APPLE TREE IN SUSSEX WITH SEVENTY BUSHELS OF FRUIT.

land in Surrey is to be cultivated. Gardening is a fine antidote for the grime and oil of munition works, and with the aid of the Daylight Saving Bill there are lighter evenings in which to do it. I suppose the vast difficulty of doing anything big in the way of cultivating waste land all over the country is because everyone is so busy and will not stop to realise how valuable the addition to our food supply would be.—E. T. ELLIS, *Weetwood, Ecclesall, Sheffield.*

Apple Annie Elizabeth.—Those of us who know this Apple greatly appreciate its recommendation by you a few weeks ago, in reply to your reader in New Brunswick. It seems to be essentially a Midland fruit, though, knowing the South and West country sorts fairly well, I never heard of Apple Annie Elizabeth till I came into this district about two years ago. Mr. Bunyard, I think, says it is a "favourite in the Midlands." Well, it may be; there are few better grown. In my modest opinion it should be placed in quite

however, must be done with care; every fruit handled and graded into a box or basket and carried to the storing room, and each fruit placed out again. Fruit will not keep if thrown about like coals into a sack or coal-scuttle. I am not writing these notes as an expert—simply as a practical amateur, but it strikes one very forcibly this is an Apple that should be in every garden and orchard in the land. I consider its many good qualities make it invaluable.—AGRICULTURAL LABOURER, *North Oxon.* [The note was accompanied by a first-rate sample of unblemished fruits, and we had never before fully realised the excellence of matured fruits for dessert at this time of year. Although its season is usually regarded as March and April, it will obviously keep until long after midsummer. It is an Apple that travels well, and some of the fruits—our correspondent will be pleased to hear—are now on their way to the Front, where they will be appreciated more than words can tell.—ED.]

SOME DELIGHTFUL SPRING SHRUBS.—I.

By H. AVRAY TIPPING, M.A., F.S.A.

IT has been war-time with early flowering shrubs this year. There was no hard or prolonged winter spell, but frost made sudden and unexpected raids immediately after rain, when all was wet and sappy. But wind has been the chief foe. The Christmas gales occasioned a good deal of wreckage to shrub as well as to tree. That seemed visitation enough, and a well-behaved equinox was surely our due. Evil communications, however, corrupt good manners, and passing across Germany it drank in the doctrine of frightfulness. I remember getting down from town to my Monmouthshire garden towards the end of March and enjoying the outlook from my window next morning. The sun shone upon an undulating sea of the hybrid Mediterranean Heath in full bloom, out of which rose a golden island of the intermediate Forsythia. Other pictures of prospering early effort met me when I walked round. But two mornings later what a change! Prone trees, riven shrubs, scattered boughs, crushed growths shared the landscape with snowdrifts. Then, after a day of thaw, came a night of frost, and every Forsythia bloom was blasted and browned. Such disaster to its neighbour increased the already great reputation of the Heath, which passed through the ordeal unscathed. Though not so bright in colouring as its progenitor, *Erica carnea*, the cool purple tinge makes it a more harmonious companion to flowers of other colours, rich yellow especially, and its blooming season is more prolonged. I can always fill a bowl with it at Christmas-time, and this year it has maintained its colouring till now (mid-May), whereas *E. carnea* turned brown before the month began.

Though they suffered, the Plums did not give in entirely to the blizzard and its following frost as did the Forsythias. The earliest and best with me was *Prunus Bleriana*. Its boughs were freely dotted with good-sized buds when the year opened. Set in water in a warm greenhouse, the first picking of twigs developed flowers by the end of the month, and by repeating the operation I maintained a succession for six weeks at least. Placed in a Japanese bronze, the leafless boughs, set with the double pink expanded blooms and the pink pearl-like buds, are a charming decoration. Outdoors the young trees were in flower when the blizzard fell on them; but though the fully expanded blossoms were torn and bruised, the buds were unhurt, and a fortnight later made a brave appearance. *Prunus Pissardii* flowers with *Bleriana*, while *triloba* and *Moseri flore pleno* follow on, and when they are over, the Cherries begin and carry one to mid-May. By that time there is a good display of less known and more tender subjects. In favourable years *Coronilla glauca* may almost be described as a winter rather than a spring flowerer, for if the weather be open its golden flower-heads begin to stud its grey-green foliage in February. All through March and April it is a sheet of gold, and even towards the end of May it keeps company with *Clianthus puniceus* as a mass of colour. The *Clianthus*, of course, is rather delicate, and can only be a successful outdoor subject in somewhat favoured regions. Here it needs wall treatment, but in a nook facing south it is exhibiting its rich and manifold clusters of Cockscomb-like flowers 10 feet up the wall. But the *Coronilla* is quite hardy. It might not everywhere bloom as early as it does

here, but the plant itself will stand hard frosts, and will flower freely, if late, where springs are cold. Its relative, *Medicago arborea*, is now almost a sheet of orange. Its special quality is as an all-the-year-round bloomer. For three years here it had never been a day without some flower, but it got so straggly that I cut it back in the winter. The result has been excellent. The side shoots started to grow, and there is now a much fuller display of bloom than it has ever had before. Few plants have flowers that will endure winter frost so bravely as this subject from Greece, and its hardiness and perpetual blooming quality have not been enough recognised. Mr. Gauntlett—from whom my plant came—marks it as delicate, and speaks of it as flowering only from August to December. Give it an airy, sunny position against a wall, and it will do much better than this.

On the question of the hardiness of certain shrubs, the opinions expressed by authorities often need revision. *Choisya ternata* used to be classed among the delicates. But in sheltered nooks it does well, even in the Midlands, while here, in the open and in half shade, it is fully as hardy as the common Laurel, and is at this moment covered with its "Mock Orange" blooms, although the bushes were much broken, split and mutilated by the blizzard. As to *Azara microphylla*, we were bidden to set it against a south wall. But here its one desire is to shoot above the top of any wall and enjoy the north-east gales. I have hardly ever seen its clean, glossy evergreen leaves seared by the frost, though most of the upper ones have this year been bodily blown away by the winter gales. It grows into a small tree, spreading out its light and graceful boughs all around, and in March or April its inconspicuous golden flowers perfume the air with vanilla. I have set it largely as a standard in the woodland. *Solanum crispum* is another

plant which loves to peer over the wall top. I remember a dozen years or more ago, when I still thought it of a half-hardy nature, planting it on the south wall of a pergola on high ground in Wiltshire. I recommended it to the owner of the garden with some misgiving. I told him he must keep it on the wall, that the growth on the top of the pergola would help to shelter it, and that this prudent placing would ensure its precious survival. When I visited him two years later, at the end of May, I found it had scorned the wall, had set itself on the top of the pergola, and there rose as a great dome of lilac-coloured blooms, braving the east winds that threw themselves down upon it from the chalk downs. I now grow it in the coldest shrubbery I possess, and the storm and stress from which we have suffered this year left both its young leaf and flower buds unscathed. The example illustrated is one I originally planted against a wall, but, like the Wiltshire plant already alluded to, it rises many feet above the wall and shoots out its great boughs as freely on the north as on the south side. It is, indeed, the north side that is here depicted. But, after all, even to those whose climate is really



SOLANUM CRISPUM ON A NORTH WALL.

cold and no home for delicate subjects, there is a vast variety to choose from. It is not everyone who can succeed with *Exochorda grandiflora*. Not only is it rather delicate, but it dislikes anything approaching a limestone formation. But our hybridisers have come to our aid, and have delightfully enriched our shrubberies with *Exochorda Albertii macrantha*. With me the old *grandiflora* is a bit yellow in the leaf, grows poorly and flowers sparsely. But the hybrid throws out vigorous shoots, of which the rich green foliage is smothered with the long racemes of fine flowers. It is as hardy as the one and as beautiful as the other of its parents. Close by a group of it, that has grown 7 feet or 8 feet high, *Clematis montana* has occupied the roof of a long shed, and thus continues the note of white. But it is very easy to get too much white in the garden, and the warm tone of the newer *C. montana rubens* is welcome in May. It is very beautiful as it twines about the balustrade of a bridge over the little stream, with one or two of its delicate flower-bearing stems hanging down and reaching the water. The colour is not very bright or pure, but as the edges of the petals are violet-purple, whereas their centres are light rose, the effect is fascinating. Still, the hybridisers should work away, and get something of a richer pink for us to enjoy. It is greedy, perhaps, to ask for it, for have we not already almost a greater wealth to select from than we can easily manage? Groups are so much better than single specimens that restraint has become one of the virtues which gardeners should largely practise.

TULIP NOTES

BY THE REV. JOSEPH JACOB.

This Abominable Season.—The Tulip must have been painfully aware this year that it is, notwithstanding the many generations that it has been with us in England, still only a stranger in a foreign land. Could anything be more unlike the sunlight, calm and warmth of those Eastern lands of Mid-Asia, which are one of the reputed homes of this brilliant flower, than the cold and rain and wind which have been its portion here in 1916? If we think the followers of Moses a mean crowd because of their whining for the flesh-pots of Egypt, we must not so readily condemn these followers of *Busquequius* if, in a season like the present, they show their resentment of the conditions of life here imposed upon them by fungus-eaten leaves and spotted flowers. Let us remember it is only their way of doing a good British grumble about the weather. "Oh, Mr. Jacob, will my Tulips ever come right? What must I do? Shall I dig them all up and burn them?" "No," I reply, "don't be too hard on them. Pick off the decaying flowers and cut away as much as possible of the damaged leaves. You will find their bark has been worse than their bite; in other words, it is quite worth while



CLEMATIS MONTANA RUBENS IN A MONMOUTHSHIRE GARDEN.

saving all except the very cheap varieties, and if the importation of bulbs is entirely prohibited, I would save even these."

There was a great assemblage of blooms at Vincent Square on May 16, but with the two exceptions of those which composed the fine group of Messrs. Dobbie and Co. and the small seedling display of Mr. W. T. Ware, all the flowers bore unmistakable signs of the very unfavourable weather through which they had recently passed. In a way this was a good thing, for as visitors walked round and noticed other Tulips just like their own, it brought them a certain amount of cold comfort. After all, it was not the bulbs, nor that the growers had failed in giving them proper cultivation, *but* the weather.

Why Such Havoc?—There is no manner of doubt about the season. It has been a bad one. I have only had one entirely good report from any grower (trade or private) about the condition of their Tulips, and that was from the Rev. Rollo Meyer, who, in a letter received on May 16, writes: "My Tulips are this year as good as any that I have ever seen at any of the shows, and are not spotted at all. But the heavy showers the last two days have broken off some of the biggest heads. Their heads are so big and the stems so long that, although sheltered from winds, they have suffered." Watton Rectory, near Hertford, is a highly favoured spot. Were not my own Tulips spotted, and had I not heard from Canon Fowler of Reading that his were too, and did I not know that the age of miracles was past—at least in England—I might have been disposed to attribute the immunity at Watton to its being rectorial land, just as when I was in Morocco some twenty years ago the people accounted for the Shereef of Wazzan being able to drink champagne (although, of course, like all strictly religious Moors, he was a teetotaller) in this charmingly unsophisticated way: "When it touches the holy lips, lo! it is water." A few words from Mr. Meyer,

should these lines catch his eye, about how he deals with the wind and cold would be of great interest and utility to many a Tulip grower, I am sure. As far as I am concerned, I must candidly confess I am baffled as to what are the secondary causes of spot and "fire." There is probably but little doubt that if it were possible to exterminate all the countless myriads of spores of the enemy—*Botrytis parasitica*—the winds might rage and the rains descend and the air get as cold as cold can be without any damage being done; but I fear that task is beyond the power of man. What, then, is the steriliser *par excellence*? What gives the much-wished-for exemption from the annoyances of *Botrytis*? Echo answers, "What?" Will our Editor kindly admit suggestions to our pages? [Certainly; helpful suggestions from others are most welcome, while another matter of perhaps secondary importance is the remarkable way in which Tulips have "broken" this year. Clara Butt, for instance, has produced anything but harmonious variations at Kew this spring, and we have recently heard of a bed of Pompadour in a Weybridge garden in which two-thirds of the bed are of the true glowing crimson and the remainder "broken." The most curious point about this instance is that all of the "broken" flowers are together at one end of the bed, and yet the bulbs were all from the same source and received the same cultural treatment. Can it be that the complaint is catching, or what other explanation is there? —ED.] I would like to know "how to touch the spot," and I am sure the knowledge would be a boon and a blessing to many another sorely distressed grower.

I am rather like the leaves in autumn, blown hither and thither by the fresh experiences of recurring springs, for last year it was that, and this year it is something else. After 1916 I feel disposed to plump for too early planting, *possibly*, *but certainly* wind. A visit that I recently paid to Mr. J. Mallender, who grows a good many

Tulips at Scrooby, near Doncaster—the English home of the Pilgrim Fathers—put as it were the cap on to my latest idea. Where the plants were exposed, as in the field hard by the Great Northern Railway line, spot and fire were rampant; but in a more sheltered orchard garden half a mile away the smaller self-same bulbs (excuse the Irishism) were blooming in spotless glory. Only in one small area of, say, 4 yards by 3 yards was there anything wrong. It would be worth a king's ransom to know for certain the cause of this. Was it the one unprotected part, or were the Botrytis spores more aggressive just there? How one *would* like to know!

Our Friend "Glass."—A bit of an experiment made at Whitewell this spring leads me to make a suggestion which, perhaps, may be of some use in these times, when in many establishments heat in the houses is reduced to a minimum. We grow "early" Tulips in pots. We grow Darwins in pots. Why not make the experiment with the strictly florist varieties? Those splendid old kinds like Sir Joseph Paxton, Dr. Hardy, Goldfinder, Annie Mac and others, which are the glory and pride of every Englishman as being so essentially a native production, all need some protection to enable them to appear at their very best. Pot culture in a perfectly cold frame or house suits them admirably, and if six bulbs are put in a 7-inch pot and well looked after until they are thoroughly ripened, they should be available for another year. There are two vital requisites for growing these gems successfully under glass—plenty of air and no heat whatever except what is absolutely necessary to keep out hard frost. All the same, provision should be made for staging them so that their beautiful interiors and their spotless white and yellow bases can be seen; and to lengthen their period of blooming, provision should be made for some sort of shade to temper the hot midday sun.

ROSE COMTESSE DE TURENNE.

This Hybrid Tea Rose is seldom referred to by writers, but it is an extremely beautiful flower. I can trace it only in one or two lists, and there it is given as an ordinary Hybrid Tea, but our plant seems to have assumed a climbing habit, for it must be nearly 10 feet high. The bulk of the growths spring from one extra strong growth sent up four or five years ago. The flowers are good in the bud and develop large and full, the colour being a satiny flesh pink.

C. T.

ROSES FOR THE ROCK GARDEN

ON all but the smallest of rock gardens a few dwarf shrubs, placed here and there among the creeping rock plants will be a welcome addition and will certainly contribute to the beauty and interest of the rock garden. Some of the dwarf Brooms, such as *Cytisus kewensis*, *schipkaensis* and *Ardoinei*, with their masses of cream or yellow blossoms, are very delightful in spring, and these may well be followed by the little Scotch and other low-growing Roses, many of which begin to bloom before the end of May and some continue in flower almost till Christmas.

Our little native Burnet Rose is quite worth a place on the rock garden, as the pretty single milk white flowers are abundantly produced and the habit is exceedingly dwarf. I first made

which in the latter half of May are covered with sweet-scented and many-coloured blossoms.

Mr. Rivers mentions in the "Rose Amateurs' Guide" that in some of the Scotch nurserymen's catalogues two or three hundred names of Scotch Roses are given. This must have been early in the nineteenth century; now we seldom find more than ten or a dozen. When planting a hedge of these Roses on a low earth wall we were content to buy unnamed varieties, with the result that the hedge is chiefly composed of a blush pink variety with a delicious scent. If the flowers open in fine weather, they are wonderfully pretty for two or three weeks; but if there is much rain just as the buds are opening, they are apt to turn brown; and, except in the case of Stanwell Perpetual, there is no second bloom among the Scotch Roses; the tiny leaves, however, are pretty in all their stages—in the vivid green of May, or the russet brown of October. The Scotch Roses are apt to encroach somewhat rapidly by means of their underground stems if the suckers are not kept down. The double yellow variety is not so vigorous as the pink and white ones. Mr. Rivers describes the true yellow as a hybrid raised in France. They all produce plenty of berries, and according to Mr. Rivers, if the seeds are sown in October in pots, the resulting seedlings should flower the following spring.

The Miniature Provence or Pompon Roses, great favourites in our grandfathers' gardens, may well be brought back to our own, and if considered too small and insignificant for the Rose garden proper, will adapt themselves well to the rock garden if given some rich soil to start in. Of these, the rosy lilac and the white de Meaux and the pale pink Spong are the best. The deep red Burgundy I only know by repute, as the plant sent to us under that name has developed into quite a big bush with pink flowers. These "kindly and gracious baby" Roses, as Dean Hole calls them, should be pruned in the late summer, for if pruned in March or April they lose their right to the title of "spring gladdening" given them by Mr. Rivers. They will stand close pruning; indeed, all Roses for the rock garden should be those that can be pruned fairly severely, otherwise they might become unshapely and take up more than their due amount of space.

Miss Lawrance's Roses are, however, so dwarf naturally that even if not pruned at all they remain quite small and compact bushes. As I wrote of these in a recent number of *THE GARDEN*, I will only say here that there are no Roses more suitable for the rockery than these, as besides being so tiny in all their parts they are in flower all the summer through. Our plants of *Lawranceana minima* are now (May 15) covered with buds, and a few days of sunshine will soon bring them out. I was interested to read in *THE GARDEN* of May 6 the references made by "Scotch Rose" to Mrs. Gore's detailed account of the various *Rosæ Lawranceanæ* in her "Rose Fanciers' Manual," and am glad to know that others besides myself would like to see these little Fairy Roses once more grown in our gardens. In commercial matters the demand is said to create the



MISS LOWE'S SINGLE

CHINA ROSE.

acquaintance with this Rose on the Aberdovey Golf Links, where at one of the holes a clump of these flowers made a particularly seductive bunker. It says something for their vigour that they stood, apparently without much detriment, many fierce onslaughts from heavy mashies and niblicks. Our own plant was sent to us by a friend from the Seascale Golf Links; as it flourishes on those seaside links one may, I think, conclude that light sandy soil will suit it. A variety of the Burnet Rose called Brightness has deep rose-coloured flowers.

The Scotch Roses, garden varieties of *Rosa spinosissima*, make an excellent little hedge or screen on the north side of a rock garden. If kept well trimmed they grow into compact bushes,

supply, and I hope it may be so in the case of Miss Lawrance's Roses. *Rosa indica* Miss Lowe is a pretty single China Rose of a bright crimson red shade and of dwarf habit. Any of the Polyantha Pompons may be grown on the rock garden, but I prefer to see them in masses in beds. The only exception I would make is in favour of the sweet-scented *Anna Marie de Montravel*. This has beautifully shaped, miniature white flowers, and it is naturally smaller in all ways than most of this class.

The Pompon *Wichuraianas* introduced by Messrs. Paul and Son of Cheshunt make very pretty little rock garden plants. There are, I think, some half a dozen varieties, of which *Iceberg*, with glossy evergreen foliage and well-formed pure white blossoms, and *Seashell*, with nearly single white flowers, terra-cotta buds and pretty ruddy foliage, are the best. They seem to need very little attention in the way of pruning, and they flower well on into the autumn. *Schneezwerg*, a *rugosa* crossed with *bracteata*, makes quite a dwarf bush if kept well pruned, and its very beautiful snowy white, semi-double blooms are produced rather late in the summer and in the autumn.

Another hybrid, *rugosa* crossed with *foliolosa*, makes a good bush, with warm rose-coloured flowers which are sweet-scented and very perpetual; but this requires more room than all

rock garden lovers would be disposed to give it. *Foliolosa* itself, though not so perpetual, is a better rock garden plant. It has very distinct foliage, smooth pointed leaves, practically no thorns, and rose pink blossoms which are delightfully scented and are produced rather late in the summer. It grows from 6 inches to 18 inches high.

The little Corsican Rose *Seraphini* is an attractive low-growing plant for the rock garden. Its stems are very prickly. In the summer it is covered with single bright pink flowers; these are succeeded by pretty round red berries. We have found more than one self-sown seedling of this variety springing up near the old plant.

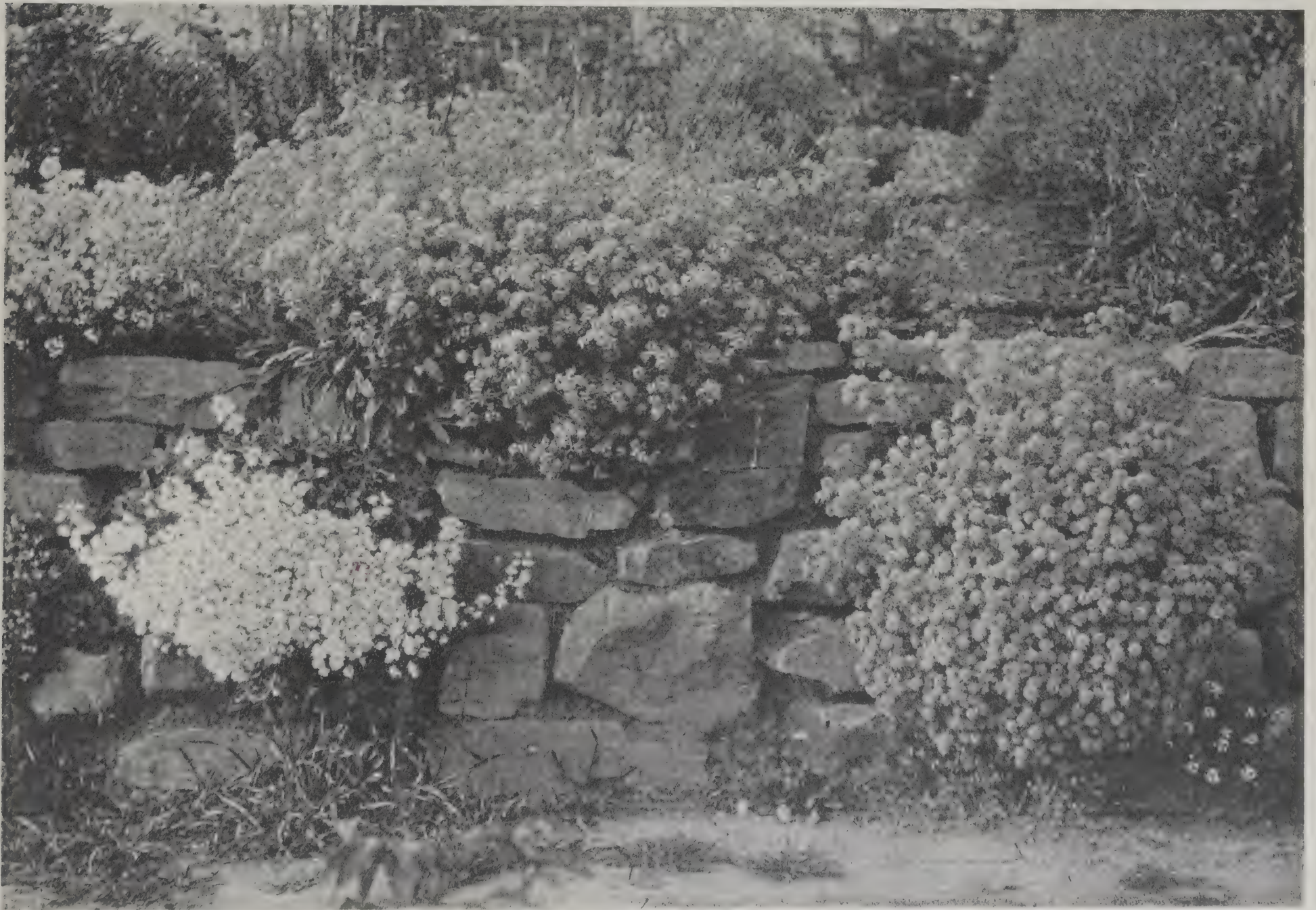
Rosa Nitida, from North America, is perhaps the most beautiful of all the dwarf species. The flowers are rosy pink and very fragrant; the foliage is dark green and shining in the summer, turning in the autumn to a brilliant scarlet. The stems, which are covered with tiny prickles, also become bright red; while the round, polished berries are deep bright crimson, the whole having a wonderfully cheerful effect when lit up by the winter sunshine. Like the Scotch Roses, *nitida* increases rather rapidly by means of stolons; these must be removed if there is any fear of smaller rock plants being choked by them. The old wood should be cut out every autumn, and the young stems, where space allows, pegged

down, for they are far more brilliantly coloured than the older ones, and much of the interest of *nitida* lies in the brightness of its autumn and winter colouring.

This is by no means an exhaustive list of Roses suitable for the rock garden; many others will doubtless occur to my readers, and those who are fortunate enough to possess a large rock garden can plant on it such interesting species as *sericea pteracantha*, with its wonderful thorns and four-petalled blooms; *alpina pendulina*, with rosy magenta blooms and pear-shaped berries; and *Soulieana*, with glaucous foliage. WHITE LADY.

A DRY-WALL GARDEN

THE flowers in the accompanying illustration are not uncommon—the blue of the *Aubrietia*, the yellow of the *Alyssum*, and the pure white of the *Arabis*, a trio of lovely flowers that curtain the surface of the wall with a profusion of strong and refined colours. Wall gardening is easily accomplished, and the illustration is convincing proof of its beauty. Apart from the commoner flowers, there is no reason why a wall garden should not give as much pleasure, and impart as great a knowledge of alpine plants, as most rock gardens. After all, the home of many alpine plants is on the almost perpendicular surfaces of rocks, with their roots deep down in the natural crevices.



A WALL GARDEN IN SPRING.

PRIMULA CONICA (BALF. FIL.).

BY G. FORREST.

THE Muscarioid section of the Primulas is a large one, containing some of the most beautiful and interesting species, all of which, with one exception, *i.e.*, *P. bellidifolia* (King), from the Sikkim Himalaya, are natives of the Alps of North-West Yunnan and South-East Tibet.

The name given to the section is derived from the form of the inflorescence, the aggregate blooms being pendulous in a more or less elongated capitulum or spike, akin to that seen in the common Muscari or Grape Hyacinth. The prevailing colour of the blooms, usually some shade of pure blue or purplish blue, strengthens the suggestion.

Year by year as exploration is extended beyond the north-western frontier of Yunnan the number of species is added to, and there is every indication that the list is still very far from complete. A few of the most charming species, such as *P. Girdiana*, *P. Littoniana* and *P. pinnatifida*, are already well known in cultivation, while still others of the section will shortly appear.

Most, if not all, of the species known are meadow plants, luxuriating on moist, even boggy, open pasture or in open thickets by the margins of streams. In some regions they form huge colonies acres in extent, and to see such a species as *P. Littoniana* in all its glory of crimson and purple colouring dominating a meadow is a sight ever to be remembered. An equally glorious scene is that of masses of *P. Girdiana* in company with *P. sikkimensis* on stream banks in Tibet. The combination of colouring is marvellous, the clear green of the pasture throwing into relief the beautifully soft shades of yellow and blue. An added attraction to most of the species is their delightful fragrance, while most of them are perfectly hardy and easily propagated.

The most recent addition to those already in cultivation is *P. conica* (Balf. fil.), shown on May 6 at the Royal Horticultural Society's meeting, when it received an award of merit.

In general appearance it somewhat resembles *P. Girdiana*, but is a plant of lesser stature, more robust habit and finer-coloured flowers; also it is more amenable to cultivation. The species was discovered in 1914 on the Chungtien plateau, North-West Yunnan, at an altitude of fully 11,000 feet, its habitat open, moist, stony meadows, principally by the sides of streams, and it flowers from early July through August. The average plant is 9 inches to 10 inches in height and completely farinose. The foliage forms a fairly dense rosette. The leaves are spatulate and softly hirsute, in form and character much like those of *P. Littoniana*. The flowers are pendulous, forty to sixty in number, in a moderately compact head, and sweetly fragrant. The corollas are fully half an inch in length by one-sixth of an inch in breadth, the limb bell-shaped, one-quarter of an inch to one-third of an inch across, deeply divided, the lobes ovoid-rotund and notched at the apex. In colour they are blue-purple, the tube darker

than the limb, in bud the deepest shade of all. The calyces and bracts are a deep ruddy purple. The fruits are globose, the seeds minute.

It is a distinguished and attractive species, likely to prove a first-rate garden plant. The stock is in the hands of Messrs. Wallace and Co. of Colchester.

NOTES FROM THE RIVIERA

BY EDWARD H. WOODALL.

CERTAINLY one of the pleasures of a garden here and elsewhere is the unexpected, more particularly when the surprise is a pleasant one. Years ago, not long after the introduction of that fine autumn flower,

Hemerocallis aurantiaca major, I brought out a plant in the month of October that had

it to another part of the garden as a plant that did not prove a success, and forgot all about it. It never disappeared entirely, however, as so many plants do after a few years of unsuitable climate and perhaps it may have bloomed in the summer or autumn when I was not here. Staying on later this year, I was one day surprised to see an enormous orange flower almost as big as an *Amaryllis* appearing among a tangle of *Acanthus*, *Oxalis* of sorts and straggling *Geraniums*. On going up to it I saw at once what it was, and had the strong tuft of leaves and flowering stems freed from its neighbours, so this fine plant is now in its fullest beauty and expansion, far finer than I have ever seen it in England. Surely this plant must demand quite different treatment to the ordinary *Hemerocallis*, which all die down in winter here just as they do at home. It must come from a much warmer climate than they do. Now that I have seen of what the plant is capable,

I should, in any English garden, take up my plants in October, pot them, and keep them in any cool and airy house all the winter, only encouraging them with some heat and moisture in the spring. Then they would, as my clump has done, flower with the *Amaryllises* in May and make the most gorgeous contrast possible to their crimson or white beauty. Judging from the effect here, a group of these flowers that are so alike and yet contrast so strongly would make a sensation anywhere, and I commend it as worth a trial by all plant-lovers. I shall certainly hope to pot up a bit to contrast with my *Amaryllises*, which I grow in frames and bring into the porch when they bloom, now that I see what it likes best. This mild season, with no frost at all during the winter and the heavy rains in spring, has produced such growth and vigour as has greatly surprised me, showing clearly what best suits its constitution, *i.e.*, a dry and warm period of rest in the autumn, followed by more heat and moisture in spring than a Northern climate can afford, thus making it a spring and not a late summer flower.

An enthusiastic friend who has made a week's excursion in the Maritime Alps thought to do me a kindness by bringing down from the mountains a quantity of the finest sky blue form of *Gentian* I ever saw, and also, to my great regret, a quantity of *Saxifraga lantoscana* and other well-known alpine, which cannot, I fear, survive even one summer in this situation and climate. However, to please him I have planted them in the most (comparatively) suitable place I could offer them, and favoured by this still genially moist and growing season they are flowering away as if nothing had happened to them. The surprise caused by them to

flower-loving friends is amusing, and the beauty of these *Belladonna* blue bells and the sprays of *Saxifrage* on the bank close by is a curious surprise to the eye dazzled by the gaudy masses of *Geranium*, *Streptosolen*, *Petunias* and other Southern flowers not so very far away. What a pity that under war conditions there is so little chance of sending such alpine beauties to a Northern climate! Yet another surprise awaited me the other morning.

Convolvulus althæoides (major form) is a very abundant and beautiful weed on dry and sunny



THE NEW PRIMULA CONICA FROM YUNNAN.
The flowers are blue purple and sweetly fragrant.

been newly imported. The plant grew away at once, flowered before Christmas, and was duly admired. The next autumn, when I returned, I found the plant had not stirred all the summer (that year was a very dry one), and it only started to grow freely in November. That winter, however, there was a sudden and severe frost in January, and to my great surprise the plant was cut down to the ground in its fullest growth. It made no sign the following spring, and there were several severe winters in succession, so that the plant did not flower, and at last I transferred

banks here, and is in full flower now; but generally the blooms, though large, are too purplish in their pink tones to be beautiful at close quarters. There are, however, several shades of colour in various parts of the valley, and one has so large and dark an eye as to be quite a garden plant. Some years ago I planted little bits of a good deep blue form of *C. mauritanicus* to take their chance, and I suddenly came across a dense mass of these two *Convolvulus* fully open in the morning sun. The blue of *C. mauritanicus* quite neutralised the purple in the pink trumpets of what was, luckily, this finest form of *C. althæoides*, and produced a "shot" effect which was so beautiful that I shall try, I hope some day, to reproduce it in England on a dry, sunny bank, as I think this can easily be achieved. Here, however, a moist season much enhances their beauty, while in England rain produces too great a growth of leaves. The gorgeous masses of

Bignonia Tweediana, now in flower on many high walls, is one of the surprises of this season to those who usually have left these shores before it has burst into bloom. Its large golden yellow flowers, open nearly flat to the sun, are in such masses that the foliage almost disappears, and the hanging garlands of its slender shoots and neat foliage are quite models of elegance and beauty. As one is often tempted to say, what a pity it does not bloom earlier! Its season of flower is, however, short though so abundant, and its slender growths and numberless seedlings must constantly be kept in check, or it would prove a veritable weed. That, no doubt, is the reason one does not see it in English cool greenhouses, but it is indeed a lovely climber.

Tritonia crocata, so gorgeous in its orange tones, is one of the beauties of the day, and its effect is singularly enhanced by a few chance seedlings of a pale blue shade of *Nigella* that have sprung up and are making a blue mist over the orange blaze underneath. A plot of the white *Omphalodes* or *Venus' Navel-wort*, not quite over, close by, adds an additional grace to the chance combination.

NEW AND RARE PLANTS

FIRST-CLASS CERTIFICATES.

Brasso-Cattleya-Lælia Joan var. Verdun (Brasso-Lælia Gratrix × Cattleya Octave Doin).—Virtually a pure yellow *Cattleya* and a variety of handsome proportions, the longish lip less broad than is usual in a pure *Cattleya*. Quite an acquisition. Shown by Messrs. Charlesworth and Co., Hayward's Heath.

Odontoglossum ardentissimum Memoria J. Gurney Fowler.—The upper sepals, save for a faint rose tint, are of purest white, those of the side conspicuously and clearly marked with almost heart-shaped blotches of reddish crimson. Lip crimson in the upper half, lower half pure white. From Miss Louisa Fowler, Brackenhurst, Pembury.

AWARDS OF MERIT.

Lælio-Cattleya Sir Mervyn Buller (Lælio-Cattleya Mrs. Temple × Cattleya Mossiæ).—The

sepals and petals are purplish rose, the pronounced and handsome lip of rich purplish crimson. Much above average size, the variety is also of exceptional colour richness. From Messrs. Armstrong and Brown, Tunbridge Wells.

Miltonia Frank Reader.—This remarkable novelty is named in compliment to Mr. Frank Reader, the popular chief cashier of the Royal Horticultural Society. The variety is of large size, wholly rose coloured save for a singularly clear and pronounced butterfly-like mask of maroon crimson. From Messrs. Armstrong and Brown, Tunbridge Wells.

Cattleya Naidia luminosa (*C. viridescens* × *C. Hardyana*).—A medium-sized flower of rare quality. The sepals and petals are salmon and rosy salmon respectively, the self crimson lip having a tube of golden yellow. Very distinct. From Messrs. Flory and Black, Slough.

Odontioda Florence.—The whole flower is copiously blotched with reddish chestnut; the lip also is similarly marked. The plant carried a handsome arching raceme of flowers.



MESSRS. DOBBIE AND CO.'S ANTIRRHINUMS AT THE CHELSEA SHOW.

Odontioda Brewii cupreum.—One of the most distinct Orchid novelties in the show, both in colour and form. The dominant colour tone is from reddish to tawny orange, clouded occasionally with bronze of middle age. The feathered lip and crest are also a feature. These two were from Messrs. Charlesworth and Co., Hayward's Heath.

Odontoglossum crispum Aldworthii (*O. c. Favourite* × *O. c. Rossendale*).—Almost a self-coloured crimson, the blotches so completely occupying the sepals and petals, which have a faint white margin. The lip is of reddish carmine. Shown by Messrs. J. and A. McBean, Cooksbridge.

Astilbe (Spiræa) Princess Mary.—The colour is rosy red and very effective. Shown by Messrs. T. Rochford, Broxbourne.

Carnation Sweet Anne Page (Border variety).—A remarkable fancy with creamy yellow ground, heavily marked lilac purple. Of handsome size and rare petal quality, the variety is also sweetly scented. From Mr. James Douglas, Bookham.

Androsace coccinea (Bulleyana).—The most conspicuously beautiful alpine novelty of the meeting; one also apparently endowed with a

robust constitution. The almost capitate heads of scarlet flowers, the latter rounder in form and more brilliant in colour than *Kalanchoë flammea* and erectly held on 6-inch-high peduncles, place this new Chinese species on a pinnacle of its own. So distinct and good-looking a plant will assuredly receive a warm welcome.

Primula conspersa.—This is also of Chinese origin, and quite distinct and pretty as well as most profusely flowered. The lilac, yellow-centred flowers are in whorls erectly poised or pressing the stem on nearly 2-inch-long pedicels. The position of the flowers and their abundance rendering the species very ornamental. The small ovate-acuminate leaves are obscurely notched. Height 15 inches. These two were from Messrs. Bees, Limited, Liverpool.

Lilac Reamur.—A single-flowered variety of deep lilac colour. From Mr. C. Turner, Slough.

Primula heladoxa.—One of the most remarkable species sent home from China by Mr. Forrest, where it is known as the Glory of the Marsh, a phrase not a little suggestive of its requirements.

Bearing seven whorls of its clear yellow, Auricula-like flowers on stems 3 feet or more high, it promises both a giant stature and great vigour approximating in more than one respect to the Java *P. imperialis*, though of even greater magnificence and distinction. It has, we are informed, proved hardy at Edinburgh.

Iris bracteata.—The best of the yellow Californian species, rather difficult to cultivate, and of uncertain flowering in this country. As shown it was exceedingly beautiful. We have never before seen it in such perfection. These were from Messrs. Wallace and Co., Colchester.

Sedum humifusum.—Quite unlike any other, this half-inch-high golden-flowered Stoncrop seemed to catch everybody's eye. We know of nothing so dwarf or so telling. Shown by Mr. Reginald Prichard, West Moors, Wimborne.

Papaver orientale King George.—The most gorgeous of the fringed or lacinated Poppies. The colour is intense crimson scarlet. From Mr. Amos Perry, Enfield.

Clematis Crimson King.—A particularly good variety, though not of crimson or even allied

colour. As shown it was of reddish hue. From Messrs. George Jackman and Son, Woking.

Rose Molly Bligh (Hybrid Tea).—A globe-formed Mme. Abel Chatenay, the reflexing petals later favouring La France. Its rich pronounced fragrance will alone ensure it a welcome. From Messrs. Alex. Dickson and Sons, Newtownards.

Rhododendron Bagshot Ruby.—One of the most gorgeous varieties yet introduced. Its great trusses and freedom of flowering are well shown on page 258 of our last issue. Ruby red externally, the flowers are paler within. Shown by Messrs. Waterer, Sons and Crisp, Bagshot and Twyford.

Lilac President Fallieres.—A quite double form with excellent truss. The flowers are coloured pale lilac. From Mr. R. C. Notcutt, Woodbridge.

Sweet Pea Dora.—A waved bicolor of pink and cream colouring. Shown by Messrs. Dobbie and Co., Edinburgh.

Pæonia Ceres.—A single-flowered officinalis similar in its cupped formation to P. lobata, and not far removed from it in its intense red salmon colour. Exhibited by Messrs. Barr and Sons, Covent Garden, W.C., and Taplow.

The whole of the foregoing novelties were before the Royal Horticultural Society at the Chelsea Show on May 23, when the awards were made.

BEST PEAS AND DWARF BEANS FOR LATE CROPS

MANY writers on the subject advise the sowing of an early variety of Peas for latest supplies, but after repeated experiments I have come to the conclusion that this is a mistake—in Scotland, at all events. Most early Peas leave something to be desired in the way of flavour, even early in the season, while in late autumn they are almost without this important feature. After fairly extensive trials I can find nothing quite so good as Royal Salute, Rearguard and The Gladstone. The last two are somewhat similar in appearance, but Rearguard is much superior, having larger pods and carrying, as a rule, a heavier crop. Royal Salute is not exactly a very late variety, but is so dependable that I always use it for latest sowings. It invariably fills well, even in a very bad season. Carter's Latest Giant is another very good Pea, a week or ten days earlier than Rearguard or The Gladstone. Autocrat, while of very fine quality, I have had to discard owing to its poor setting qualities in wet weather.

In this and similar late districts I find it useless to sow Peas later than June 3, and usually the last few days of May are chosen for this work.

The Dwarf Kidney or French Beans are not nearly so extensively grown as their merits deserve. Speaking generally, no other vegetable produces a better return if conditions are favourable. Had I to confine myself to one variety, I could not pass Sutton's Reliance. It is good, early or late, and carries a remarkably heavy crop of first-rate quality. If planted in the last half of June and no unduly early frosts appear, fine pods will be available quite late in the season. Canadian Wonder is the only other variety worth growing here, and it also is of great value. It is naturally later than Reliance, and must usually be sown a week or so earlier. Rich, well-tilled ground in a sunny position gives the best results with this crop.

C. BLAIR.

The Gardens, Preston House, Linlithgow.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

Wall Trees.—At this period of the year, especially if the weather is at all dry, trees growing in close proximity to walls will need copious supplies of water, or a quantity of the fruit will fail to develop. Liquid manure may be given, but it ought not to be applied when the border is in a dry condition. Continue to syringe the trees daily, and the fruit must be thinned in accordance with the vigour of the trees. Mulch the roots with decayed manure.

Strawberries.—These may also require water, but it should be discontinued directly the fruits begin to colour.

The Kitchen Garden.

Ridge Cucumbers.—These may now be planted out either on slight hotbeds or in ordinary soil. Keep the plants supplied with water, and, if time permits, syringe them twice daily.

Broad Beans.—Where a late supply is desired, a sowing may be made in the coolest part of the garden. Remove the tops of the early plants; this will encourage the pods to mature. If black fly is prevalent, spray with a weak solution of some insecticide, or dust the plants over with soot before the dew evaporates.

Vegetable Marrows.—Select a sunny position for the main crop of these useful vegetables, and make the soil fairly rich. The plants should have been hardened, and may be planted out forthwith, while a few seeds should be sown for succession. Where plants have been growing in frames, the latter can be removed and the roots top-dressed with soil and decayed manure. Give liberal quantities of water during periods of drought.

Chicory.—Salads are always appreciated, and seeds of Chicory may be sown in lines 1 foot apart. When large enough, thin the seedlings, leaving 8 inches or 9 inches of space between the plants.

The Flower Garden.

Plants in Tubs.—Specimen plants, such as Fuchsias, Hydrangeas and Myrtles, should be placed in position on terraces and drives; but before doing this they may be top-dressed with new compost or be given a little artificial manure. Tubs or boxes filled with Pelargoniums such as Paul Crampel or Marguerite Mrs. Sander are also effective. Some of the Japanese pigmy trees are very quaint, and are suitable for a raised terrace near the dwelling-house.

Herbaceous Borders.—Many of the tall-growing herbaceous plants will require staking, and all such work ought to be done as neatly as possible. The hoe should be used frequently to keep weeds in check.

Plants Under Glass.

Primula obconica.—Last year a pinch of seed was sown about this time here, and from February to the present the plants have produced a wealth of bloom. They are ideal dwelling-house specimens, being in 4½-inch pots, with plenty of foliage. After the seed has germinated, the seedlings must be grown quite cool.

Double Primulas.—These are valuable for cut flowers, and the present is a suitable time to divide the old plants. For a week or two a close propagating-frame will prove the best position, and the plants must be shaded from strong sunlight. Add a little peat to the usual compost.

Gardenias.—Cuttings inserted last spring will require more root space, and should finally be placed in pots 6 inches or 7 inches in diameter. Grow on in a warm house where a moist atmosphere is maintained, and stop all shoots that are likely to make an unshapely plant. When the pots are full of roots, liquid manure and soot-water will be beneficial.

Fruit Under Glass.

Melons.—Plants whose fruit is now approaching maturity should be given more air and less moisture in the atmosphere, but it will be necessary to still water the roots to prevent the foliage from shrivelling. When the stalk parts readily from the fruits, remove them to a cool fruit-room until

required. Later plants may be top-dressed and the growths regulated in such a way as to obviate overcrowding. Close the house early in the afternoon and give a thorough syringing.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Flower Garden.

Bedding Out.—From the present time all is activity in the flower garden, bedding out tender plants or making preparations for this important work being general at this date. In some districts a lowering of the temperature and even 1° or 2° of frost are not unknown about the beginning of June, and those who have had experience of it will postpone the work until the visitation is past. Generally speaking, however, bedding out in Scotland commences early in June, and no time is then lost in getting everything planted out. Those who have prepared a plan of arrangement in advance will have no difficulty in carrying the work through with despatch. The best plan to adopt is to settle the bedding-out arrangements the previous autumn when the beds are in full flower, and propagate the stock accordingly. A less ambitious display will be the rule this season, owing to labour difficulties; but it is hoped that most gardeners will be able to create a few bright spots of flowering plants, even if the bulk of the flower-beds have been given over to vegetable-growing, as is the case in many places.

Fruit Under Glass.

Peaches.—As soon as the trees in the early house have been cleared of fruit, they should be gone over, removing all the wood that will not be required for laying in for next season. This thinning out allows the free access of sun and air to the young wood which is destined to carry the next year's crop. When this is carefully done, little, if any, pruning will be required during the winter cleaning. As the roots have been kept somewhat drier during the ripening of the fruit, they ought now to receive a good soaking of water, repeating this at intervals as they require it. The foliage should also receive a good washing frequently with the garden engine to check any likely attack of red spider. The house must be given full ventilation when the trees are ripening the wood.

Late Peaches.—All the fruits having now set, timely attention to watering and liberal syringing of the foliage is essential. Lead in the young growths as they develop and pinch out the lateral shoots. Fire-heat may now be discontinued, unless a cold, wet period should occur.

Plants Under Glass.

Nerines.—Few plants can compare with Nerines for the decoration of the greenhouse in autumn. There are now many new hybrids of varying shades of colour, but none more serviceable than the brilliant Nerine Fothergillii major. The plants have now quite finished their growth, and water should be entirely withheld, allowing the bulbs to ripen in their pots. They should be given a dry position in an unheated pit or frame, with the lights kept on to protect them from rain until they again show signs of making fresh growth in August. Repotting should not be too often practised, every third or fourth year being generally sufficient.

Liliums in Pots.—Lilium auratum, L. speciosum and other autumn-flowering varieties are now making good growth, and these should be supported with stakes before they are in danger of getting broken or twisted. Numerous roots will now be noticed at the base of the stems, and if the pots were only half filled with soil at the time of potting up, these should now be filled with a suitable top-dressing. Some lumpy loam and pieces of half dry cow-manure make an excellent rooting and feeding medium, which will soon be taken possession of by the stem roots. A portion of these bulbs ought to be plunged in ashes in a cool place to provide a late autumn display.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

SPRING SHOW AT CHELSEA

STOVE AND GREENHOUSE.

THE following was unavoidably left over from our last issue:

A magnificent bank of tuberous-rooted Begonias made a beautiful group of this highly coloured subject. This was shown by Messrs. T. S. Ware, Feltham, Middlesex. Good quality characterised the flowers, and the plants were well grown and also staged in a pleasing way. All the flowers were double, and the better varieties were Miss Vance, Iris Strover (rose), Mrs. Canfield (clear rose pink), Lady Gladstone (soft yellow), Lord Derby, Gladys Valentine (soft salmon), Marchioness of Bute (rich salmon) and Empress Marie (white). Ferns were used as an embellishment.

Show and fancy Pelargoniums are always associated with the name of Messrs. Godfrey and Son, Exmouth, Devon, and on this occasion the group was interesting, displaying as it did a number of the better varieties, though not quite so attractive as usual. Bystock, Vivid, Betty, Mrs. Stanley Thomas, Captivation, Charmer, Reginald Godfrey and Prince of Orange were a few of the better varieties.

Streptocarpus and Gloxinias from Messrs. John Peed and Son, West Norwood, S.E., made a table group, filling in the western end of No. 2 tent. They were all good and showed a great diversity of coloration, divided up into masses of colour.

Zonal Pelargoniums, shown in bunches by Messrs. Jarman and Co., Chard, were very bright with their rich colours. Both double and single forms were shown, and all were very clean and nicely finished.

A pretty table group of Schizanthuses set up by Mr. Alfred Dawkins, Chelsea, S.W., was highly commendable. The plants were dwarf and freely flowered, and represented a wide range of very pleasing colour. It was a distinctly pretty exhibit.

Double-flowered tuberous Begonias and Delphiniums were well shown by Messrs. Blackmore and Langdon, Twerton Hill, Bath. The Begonias were especially noteworthy, some of the more attractive varieties being Betty McDougall, General Joffre, F. W. Walker, S. W. Sutton, Princess Victoria Louise, Royal George, Lord Methuen, Lady Cromer, Grand Monarch, Christabel Spry and Kennerley Rumford.

Pigmy trees were well shown by the Yokohama Nursery Company, Limited, Cromer House, Kingsway, W.C. Exceptional specimens in this group were Thuya obtusa, of which there were many examples, and Wistaria chinensis. The ages of the trees varied considerably, a fine Thuya obtusa being 175 years old. It was a most interesting exhibit.

Japanese pigmy trees from Messrs. Barr and Sons, King Street, Covent Garden, W.C., were capitally shown, embracing quite an interesting series. Some of the smaller specimens were very quaint, and for lovers of this method of culture there was much to interest and please.

A unique group of the new Senecio multibracteatus was exhibited in No. 1 tent by Mr. R. C.

Notcutt, Woodbridge, Suffolk. This plant should prove a useful greenhouse subject for flowering during May and June. It is of South African origin, and was exhibited for the first time at the show in 1915.

VEGETABLES.

As is their usual custom, Messrs. Sutton and Sons, Reading, staged a really valuable collection of vegetables representing the highest culture, and remarkably good for so early in the season. Broccoli Late Queen, Cauliflower Magnum Bonum, Tomatoes Eclipse, Satisfaction, Invicta, Early Market, Princess of Wales, Abundance, Magnum Bonum, Best of All, Winter Beauty and Dessert were all excellent. Peas, Turnips, Marrows, Potatoes, Carrots, Cucumbers, French Beans, Lettuce and many other subjects were superbly staged in this large and comprehensive collection. This was the only exhibit of vegetables in the whole show.

SUNDRIES.

Notwithstanding the strenuous times through which the country is now passing, there was a very

S.E., which consisted entirely of their patent Hop Manure. This well-known article, which consists of a waste product carefully and scientifically treated with suitable chemicals, is somewhat in the form of a leaf-mould, and is the best-known substitute for stable manure at present on the market. It is a valuable top-dressing for all kinds of plants and fruits.

Some good examples of fibrous yellow loam were shown by Mr. A. B. Johnston, Cranleigh, Surrey.

On a well-arranged stand the various insecticides compounded by Price's Patent Candle Company, Limited, Belmont Works, Battersea, attracted the attention both of amateur and professional gardeners.

Spraying machines, syringes, manures, insecticides, &c., were displayed on a large central stand by Messrs. Walter Voss and Co., Limited, Glengall Road, Millwall, E.

A selection of appliances necessary for the well-being of lawns, both large and small, was shown by Messrs. H. Pattison and Co., Greyhound Lane, Streatham, which included the famous horse boots, turf renovators, brooms and weeding tools.



MESSRS. SUTTON AND SON'S VEGETABLES AT THE ROYAL HORTICULTURAL SOCIETY'S SPRING SHOW.

credible display of implements and other appliances necessary for conducting a well-ordered garden. A portion of these were staged in a special tent set apart for the purpose, and the remainder were in the open.

An interesting exhibit of sprays and washes for insect pests was shown by Jeyes Sanitary Compound Company, 64, Cannon Street, E.C., together with a useful spray syringe.

Adjoining the above, Messrs. J. Weeks and Co., Victoria Street, S.W., showed an excellent geared arrangement for ventilating greenhouses, together with wood lath blinds, an iron staging, and specimens of their well-known heating apparatus.

Trugs fitted with garden tools were shown by the Garden City Trug Company, Fleet, Hants.

An attractive display of powders and fluids for disinfecting purposes was staged by the Sanitas Company, Limited, Locksley Street, Limehouse, E.

Folding garden tables, seats, &c., were shown by Messrs. Abbott Brothers, Southall.

One of the most interesting displays in the sundries section was contributed by Messrs. Wakeley Brothers, Limited, Honduras Wharf, Bankside,

Mushroom spawn, Orchid peat, fumigators, &c., were shown by Mr. James George, Redgrave Road, Putney, S.W.

Weed killers, insecticides and spraying pumps formed the most interesting features of the exhibit of Messrs. Cooper and Nephews, Berkhamsted, among their specialities being a recognised cure for mildew.

The Molassine Company, Limited, Greenwich, had a stand consisting entirely of "Rito" fertiliser. Its use is followed by most gratifying results and in some instances it has doubled the produce of the land.

The well-known Fame's Fertiliser and Ichthemic Guano were brought to the fore by Messrs. Prentice Brothers, Limited, Stowmarket, Suffolk.

One of the most interesting exhibits during the present spell of dry weather was that of Mr. J. Haws, Clapton Road, N.E., who had a large and varied display of his improved watering cans.

Messrs. E. A. White, Limited, Paddock Wood, Kent, had a well-arranged stand devoted to Abol preparations, very useful to all gardeners to enable them to completely conquer their life-long enemies.

Fumigating compounds and horticultural sundries were shown by Mr. Percy Bunyard, Kidderminster Road, Croydon.

The Acme Chemical Company, Tonbridge, Kent, showed samples of their well-known lawn sand, weed killers, &c., so often required for the garden.

Examples of their well-known Teak-wood furniture were shown by Castle's Shipbreaking Company, Limited, Millbank, S.W.

Old garden ornaments, figures in stone, lead and marble, garden seats, &c., were shown by Messrs. T. Crowther and Sons, North End Road, Fulham.

The United Brassfounders and Engineers Company, Limited, Birmingham, had a varied exhibit of syringes and sprayers in all sizes.

One of the features of the stand of the Four Oaks Company, Sutton Coldfield, Birmingham, was the "Little Wonder" powder distributor, which is a thoroughly effective machine, and sprayers in all sizes, from 3 pints to 25 gallons, and of the highest possible pressure required.

The Holder-Harriden pneumatic sprayers in a great variety of sizes, suitable for either large or small gardens and fruit plantations, were shown by Messrs. H. Hartjen and Co., London.

Well-made span-roof glass houses specially adapted for various kinds of plant culture were shown by Messrs. Pearce and Co., Holloway Road, London, N., together with the "Ideal" summer-house, also garden seats and hot-water apparatus.

A large display of summer-houses, garden tents, seats and varied sundries was shown by Messrs. Gamage and Co., Holborn, E.C.

The Dryad cane garden seats and furniture, including tables, baskets, &c., were staged by the Dryad Company, Leicester.

ANSWERS TO CORRESPONDENTS

FLOWER GARDEN.

"FIRE" IN TULIPS (E. A.).—The Tulips are attacked by the disease called "fire." Every piece of the affected plants should be collected and burned, and if they are very bad it would be as well to dig them up with the soil about them and burn the whole. The trouble is due to a fungus called *Botrytis parasitica*, and is carried over from year to year on the bulbs or in the soil in the form of small, hard, black, resting bodies.

INJURY TO PHLOX (Mrs. R. H.).—The Phlox is attacked by the stem eelworm, a very difficult pest to combat. It infects the plants from the soil, and plants in infested soil are always liable to suffer. Unfortunately, a large number of different kinds of plants are attacked by this pest, which renders it more difficult than usual to prevent its attacks. All pieces of the Phlox showing the curling of the leaves and the curious malformation due to the pest should be burned, and the plants propagated only from healthy pieces. Keep the plants well supplied with water during the growing season, and try the effect of one of the soil fumigants, which should be hoed in about the plants.

LILIUM AURATUM (T. W.).—To your enquiry, "Can the bulbs of these be saved for another year by lifting them after they have flowered?" the direct answer is that the lifting alone will avail them nothing, the plant (bulb), buried 5 inches or 6 inches in the ground, being perfectly hardy. The thing that matters is whether the bulb in the year of planting has produced any basal roots, *i.e.*, roots emitted from the base of the bulb, which are more or less of a perennial nature, as opposed to those produced on the stem, which, like the latter, being annual, perish when their function has been fulfilled. In hundreds of instances these latter are the only ones produced, and the flowering, should it amount to this, so completely exhausts the bulb that the latter perishes as a result of it. Where basal roots are formed, support is given to the bulb from the soil, and the embryo of a new bulb core being formed, there is hope of a permanent colony being established. The guiding sign to the latter would be a good flowering, coupled with the retention of the leaves on the greater part of the stem of the plant. Should such be present, do not interfere with the bulbs, but—"wait and see." When the opposite is the case, the chances of continued success are practically nil. Generally it will be found that the variety of *L. auratum* known

as *platyphyllum* is better than the type. The subject, however, is so full of interest to the amateur at this season that we may find space to refer to it in fuller detail in a subsequent issue.

TREATMENT OF HYDRANGEAS (B. L.).—The reason of Hydrangea flowers turning blue is somewhat obscure, as in some soils practically all of them are of this tint. It is generally supposed that it is due to the presence of iron in the soil, and attempts to turn them blue by mixing iron with the potting compost has met with a certain amount of success. Watering with a solution of alum water has also at times been successful. By far the most satisfactory way, however, is to use one of two preparations which are sold for the purpose. The first is Cyanol, which can be obtained from horticultural sundriesmen. The plants must be watered with a solution of this once a week during the first part of the growing season until the heads of bloom are 3 inches or 4 inches in diameter, after which apply every two or three days till the flowers are quite open, when once a week will suffice. It is very essential that the water and soil are free from chalk—rain water is preferable; and no artificial manure must be applied. The second, Azure, is a speciality of Messrs. William Cutbush and Sons of the Highgate Nurseries. Their instructions are: "One heaped teaspoonful (half an ounce) of Azure placed on the surface of a 32 or 6-inch pot just when the bud is showing is all that is needed. The usual watering completes the treatment." The plants in pots and tubs do not need repotting every year, but they should, during the growing season, be watered once a week with liquid manure, or be given one of the many plant foods that are now on the market. In the case of small plants that are intended to be kept dwarf, they may, after flowering, be cut back to within two or three eyes of the base. All the pruning that large specimens need is to cut out any weak and exhausted wood in the centre.

ROSE GARDEN.

ROSE FOLIAGE BLIGHTED (J. L.).—The leaves sent have been badly infested with red spider. You should be careful to syringe more freely on sunny mornings, taking care the spray is well directed upon the under side of the foliage. If taken in time, any of the well-known insecticides, such as Abol or Jeyes' Horticultural Wash, would enable you to keep the pest in abeyance. You should spray with one of these at once and repeat at frequent intervals, only now it would be best done in the afternoon about 5 o'clock. Doubtless the old foliage will fall early. If you examine the foliage with a powerful magnifying-glass you will see the red spiders.

GLOIRE DE DIJON AS A WEEPER (Maida Vale).—This fine old Rose can be trained as a weeper if the long growths have string attached to the ends and are gently bent over archlike, securing the string to the stem of the standard. By so training you will have blossom all over the growths. To induce the tree to make long growths annually, you should cut away some of the old wood each spring quite close to the base of the head, and, of course, the tree must be well nourished with liquid manure when growth is active. One of the freest purple Clematises is *Jackmanii* Star of India, and *Gipsy Queen* is a little darker in colour. Either would be suitable for a London garden. It is best to obtain two year old plants, if possible, and of extra size.

MARECHAL NIEL AFTER FLOWERING (Cambrensis).—The best treatment for your pot plant of this Rose would be to cut back all the growths to within 6 inches of the top of the pot, but this would necessitate giving the plant abundance of solar heat and moisture until August. If you are able to do this, then cut back at once. You will soon see new growths push out, and if these are kept well syringed in the morning about 9 o'clock and in the afternoon about 3 o'clock, and the house is kept as close as possible, giving a little air on the top ventilators only, then growth should be rapid, and you may have shoots 12 feet to 20 feet long by August. After this, gradually harden off so that the growths become well ripened, and at the end of September give all the air possible. You must bring the pot down from the stage as new growths develop, so that they may be trained upon the roof. They must not be bent down as at present. When the new growths are well advanced, good liquid manure should be given once a week.

MISCELLANEOUS.

GRUBS IN THE SOIL (H. O.).—The yellow grub is one of the wireworms which become click beetles later on. The others are grubs of the garden swift moth. They are unlikely to do much harm to Potatoes, as they will very shortly turn into moths. These caterpillars feed mostly on roots of *Paeonies*, *Daffodils* and so on, and do considerable harm among these.

SULPHATE OF IRON (J. E. W.).—Sulphate of iron has little manurial value, except where the foliage of plants fails to become of the normal green colour. Then it may be used at the rate of about 1oz. to 2oz. to the square yard with advantage, but in the powder form. It has some fungicidal value, but is far less useful than copper sulphate for the purpose of spraying.

A SAMPLE OF MANURE (Chemical).—The material sent appears to be nitrate of potash, a very expensive manure just now. We do not think it will be wise to give it to Tomatoes or Cucumbers at all, as it is likely to induce too active growth; but if used at the rate of half an ounce to the two-gallon can when watering plants that need to be encouraged to produce leafage, you will find its effects useful.

GARDEN PESTS (Mawby).—The damage is due to the insects sent, Raspberry or clay-coloured weevils, which do much damage in their mature state, while in their grub state they feed on the roots of various plants. They are best caught now and when they are feeding at night. They may also be killed by laying traps of poisoned bait, say, a handful of Clover which has been dipped in Paris green or lead arsenate.

CROCUSES AND CELERY CABBAGE (Enquirer).—We do not know of any Crocuses that are really immune from the attacks of mice, and the only safe way would be to trap the pests. In some localities the latter abound, and generally on light soils they are more or less troublesome. For autumn flowering *C. speciosus* and *C. nudiflorus* would be among the best for grass, both being tall and free and increasing well. For spring effect you had better resort to the bedding sorts, most of which are free in growth and bold. Kathleen Parlow, Caroline Chisholm, White Lady and Snow White are the best whites; Maximilian, fine mauve; Mammoth Yellow, the best golden; and Mikado and Albion, the finer striped sorts. All are hardy, and would be likely to succeed in ground not infested with mice. Celery Cabbage is more or less a misnomer, though it has been boomed as such recently in America. As Chinese Cabbage it was known thirty years ago. Botanically, it is recognised as *Brassica sinensis*. Its habit of growth is not unlike that of a Cos Lettuce, and both leaves and stems are eaten. As an article of food, however, it possesses but small value, and, not being hardy, is unsuited to cultivation generally in these islands.

War News from France.—If there is one thing more distressing than another in connection with the great war, it is the fact that of many of our old friends living in the invaded territories no news can be obtained at all. There are many well-known Belgian horticulturists at Ghent, Brussels and elsewhere who have friends in England, and of those practically no news, either direct or indirect, can be gleaned. In the North and North-East of France we have also horticultural friends whose homes lie behind the German lines, and from whom it has long been impossible to hear. M. Henri Fatzer of the Forceries de l'Aisne, a sturdy Swiss residing at Quessy, has not been heard of since the war began, and his friends in London are naturally anxious about him. His friends in Paris appear to be also in the same predicament. M. Albert Maumené, a distinguished writer on horticultural subjects and the able editor of our French contemporary, *La Vie à la Campagne*, was wounded early in the war, and all our efforts to obtain news concerning his condition have proved to be in vain. The son of our old friend M. Henri Martinet took part in a charge on the German trenches some months ago, and has never been seen or heard of since. He was a well-educated, gentlemanly youth who finished his education at Cambridge University, and his loss is greatly to be deplored. M. Henri Martinet, it will be remembered, is the editor-in-chief of our Parisian contemporary and namesake, *Le Jardin*.

TRADE NOTE

We learn that Mr. Herdman Thomson has joined the old-established and well-known firm of Messrs. Thomas Methven and Sons, Nurserymen and Seedsmen, Edinburgh. For the past eleven years Mr. Thomson has been associated with the business of the late Mr. David W. Thomson, Nurseryman and Seedsmen, 113, George Street, and Granton Road Nurseries, Edinburgh but owing to Mr. Thomson's death his business is now being wound up by his trustees. We wish Mr. Thomson and his new firm every success in the future.

The War Office notifies that from now onward all papers posted to any neutral European country will be stopped, except those sent by publishers and newsagents who have obtained special permission from the War Office. Such permission has been granted to THE GARDEN, and subscribers who send to friends in Denmark, Holland, Norway, Sweden, Switzerland, Spain, Portugal, Greece, and Roumania should order copies to be despatched by the Publisher from 20, Tavistock Street, Covent Garden, W.C.

** The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

No. 2325.—VOL. LXXX.

JUNE 10, 1916.

NOTES OF THE WEEK

LILACS made an unusual show at the recent exhibition held at Chelsea. Two varieties, one single and the other double, were given awards of merit, namely, Réaumur, with broad panicles of large purplish carmine single blossoms; and President Fallières, a large double flower of a pale lilac pink tint. Magnificent double whites are Miss Ellen Willmott and Jeanne d'Arc, while Mme. Lemoine, which remained the best double of that colour till the advent of the two preceding, was also well represented. The creamy white Mme. Casimir-Périer, which forces so readily, is also very fine when allowed to come on at its normal season. Of single kinds, special mention may be made of the popular Marie Legraye, pure white; Souvenir de L. Späth, rich purple carmine; de Miribel, dark bluish violet; and Réaumur.

The New Malmaison Carnation Mrs. Myles Kennedy.—The floral committee of the Perpetual-Flowering Carnation Society met on May 23 and passed the society's award of merit to the new Perpetual-flowering Malmaison Mrs. Myles Kennedy, a perpetual-flowering form of the well-known Malmaison Princess of Wales, possessing the flower of this variety with the habit of a Perpetual-flowering Carnation. It was exhibited and raised by Messrs. Stuart Low and Co., Bush Hill Park.

Lonicera syringantha.—Although this Honeysuckle was introduced from North China in 1892, it does not appear to be widely distributed. It has only to be seen and its fragrance perceived, however, to be prized. It is a tall-growing shrub, but is quite amenable to the pruning knife. Its pale pink, tubular flowers are less than an inch in length, but are produced in great profusion. One of the recommendations of this among the many Honeysuckles is that it is early flowering.

Investigation of Narcissus Disease at Wisley. Growers of Narcissi have suffered during the last few years from the loss of a considerable number of bulbs owing to the attack of a disease which has so far proved impossible of cure. We are relieved to learn that the Royal Horticultural Society has just appointed an investigator to study the disease and, if possible, to devise means of checking

it. The Director of the Royal Horticultural Society's Gardens, Wisley, Ripley, Surrey, would be glad if any having the disease in the foliage or bulbs of their Narcissi would send specimens to him with as full particulars as possible.

Rose American Beauty.—The obituary notice relating to the late M. Ferdinand Jamin serves to remind us that the Rose so famous throughout the United States of America as American Beauty is in reality Mme. Ferdinand Jamin. Like the newer red Prince de Arenberg, Mme. Ferdinand Jamin has never proved of much value for outdoor blooming in this country. Just when it made its way to the United States of America and changed

anticipated, and the catalogue will be a heavy one. Magnificent offerings of rare plants of every description, valuable books, paintings, and furniture for gardens will be submitted to auction. As a result, it has been found necessary to extend the sale beyond the two days originally intended. The days of the sale are June 27, 28 and 29, at 11.30 and 2.30 respectively on each day.

The Crystal Palace.—While the memory of the great Spring Show is fresh in our minds, and while we are wondering if we really did miss the mammoth tent which hitherto we have inseparably connected with "Chelsea," it is interesting to recall the origin of the Crystal Palace. Everyone knows that the great building owes its existence to the genius of Sir Joseph Paxton, but few probably are aware that the waiting-room of the Midland Railway Company at Derby Station was its birthplace. The great gardener had seen the advertisement for plans, and here, while waiting for a train, he made his original sketch upon some blotting paper which chanced to be on the table. "This first rough sketch indicated the principal features of the building as accurately as the most finished drawings which were afterwards prepared."

New Laboratories at Wisley.

The new laboratories at Wisley are now approaching completion, but owing to the war and to the absence on active service of several members of the staff, the Council of the Royal Horticultural Society does not propose to hold a formal opening ceremony at present. Members of the staff will, however, have great pleasure in showing visitors over the building

and in explaining to them the work which is going on and the purposes for which the several laboratories are destined. Although visitors will be welcome on any day on which the gardens are open, the most convenient days are Mondays and Fridays, in the afternoon, and during the months of June and July the Director and the staff will hold themselves at the disposal of visitors



LILAC MISS ELLEN WILLMOTT.

its name to American Beauty we cannot say, but for the last twenty years or more American Beauty has been the supreme red Rose for forcing, and its prestige has only just recently been really challenged.

The Royal Horticultural Society's Red Cross Sale.—Her Majesty Queen Alexandra has most graciously extended her patronage to the sale of Orchids, plants, horticultural books and other objects, which is being organised by the Royal Horticultural Society to be held in the Hall at Vincent Square towards the end of June. The number of entries received far exceeds that

*** Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.*

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Aquilegia Ecalcarata.—I note in your issue of May 27, page 252, a note and an illustration by Mr. E. A. Bowles of an *Aquilegia* to which he gives no name, but states it was collected by Mr. Farrer in 1914. The description and illustration seem to me to be identical with the plant I showed at Chelsea in 1915. This at Kew was named *Aquilegia ecalcarata*, and was put before the committee as such, but received no award. I thought you would like to see this, and should be glad to know if you think it is the same as the one illustrated; it was sent home by Purdom.—J. C. ALLGROVE. [This plant proves to be identical with the unnamed species described and figured by Mr. E. A. Bowles in *THE GARDEN*, May 27, page 252. It is again referred to on page 285 of this issue.—ED.]

Roses on Their Own Roots.—It would be interesting if Mr. Thackeray Turner would give a list of the Roses that he finds grow and flower so well on their own roots. I know of several that will do so; but, alas, there are many that will not; and I fear that by only growing them on their own roots very many of the most beautiful Roses would have to be discarded. I know of one that grows on its own roots like a weed with me, and that is, strangely enough, a variety catalogued as an exhibitors' Rose only, viz., *Gustave Piganeau*, and a lovely Rose it is. I have had some forty years' experience of Rose-growing on various soils—on the poor yellow clay of the western edge of the Weald, on the poor white sand on the Hindhead Hills, on the rather better sort of clay at Haslemere, and, for the last three years, on a soil of very similar nature to that of Mr. Thackeray Turner's. I have not found much difference in the growth of my Roses in the various soils. Some Roses will deteriorate in a few years, and this is more especially the case with the newer Roses of

weak constitution. I note Mr. Turner's cure for mildew, which sounds almost too good to be true.—ALLEN CHANDLER, *Kimbers, Haslemere*.

Aquilegia and Columbine.—The beauty of some of the newer garden hybrids, with their elegantly elongated spurs, hides very effectively the origin of their name. They bear no resemblance to either the eagle of their botanical name or to the dove of their popular one, and one has to turn to a flower of the species *Aquilegia vulgaris* before one can recognise in the shortened petal and the blunted spur any resemblance to either bird. And it is perhaps, after all, to the conventional eagle of some of our older church lecterns rather than to the real king of birds that a likeness (with a slight effort of the imagination) is apparent. But how comes it that one and the same flower should have two such opposite and unlike birds as the eagle and the dove as its prototype? It is one of those things that the ordinary mortal cannot understand, and I suppose it must be left to the imagination of the poet to find a solution.

"One said it was an eagle;
Another he said, Nay,
'Tis but a cooing turtle dove,
That has gone and lost its way.
Look ye there!"

—H. E. MOLYNEUX.

A Frame of Strawberries.—It may interest your readers to know of an experiment I have tried, and my gardener has taken great pains to bring it about. I suggested to him that we grew a frame of Strawberry plants (no heating power but the sun), and last autumn he planted *Royal Sovereign*, with the result that we have some fine fruits, and I had a fair-sized dish of them on the table last evening (May 29). I wonder if this plan has been tried before; but as far as I am concerned it is original. People who have been in the garden during the last few days have been greatly surprised at the frame with its beautiful contents.—(Miss) H. C. PHILBRICK, *The Cedars, Halstead, Essex*. [Although there is nothing new in growing Strawberries in a frame, we are, nevertheless, pleased

to publish this note, and we congratulate our esteemed correspondent on the success of her experiment.—ED.]

Echium Wildpretii in the Open in Cornwall.—Mr. Tyringham and I send you the enclosed photographs of *Echium Wildpretii*, the plants of which we grew from seed, and they are, I believe, very fine specimens for out of doors. The single one is 7 feet 6 inches in height and 2 feet 8½ inches in girth. The variety of shapes are owing to frost, which injured the tops, and the consequence is they branched out.—DIANA TYRINGHAM, *Trevethoe, Lelant, R.S.O., Cornwall*.

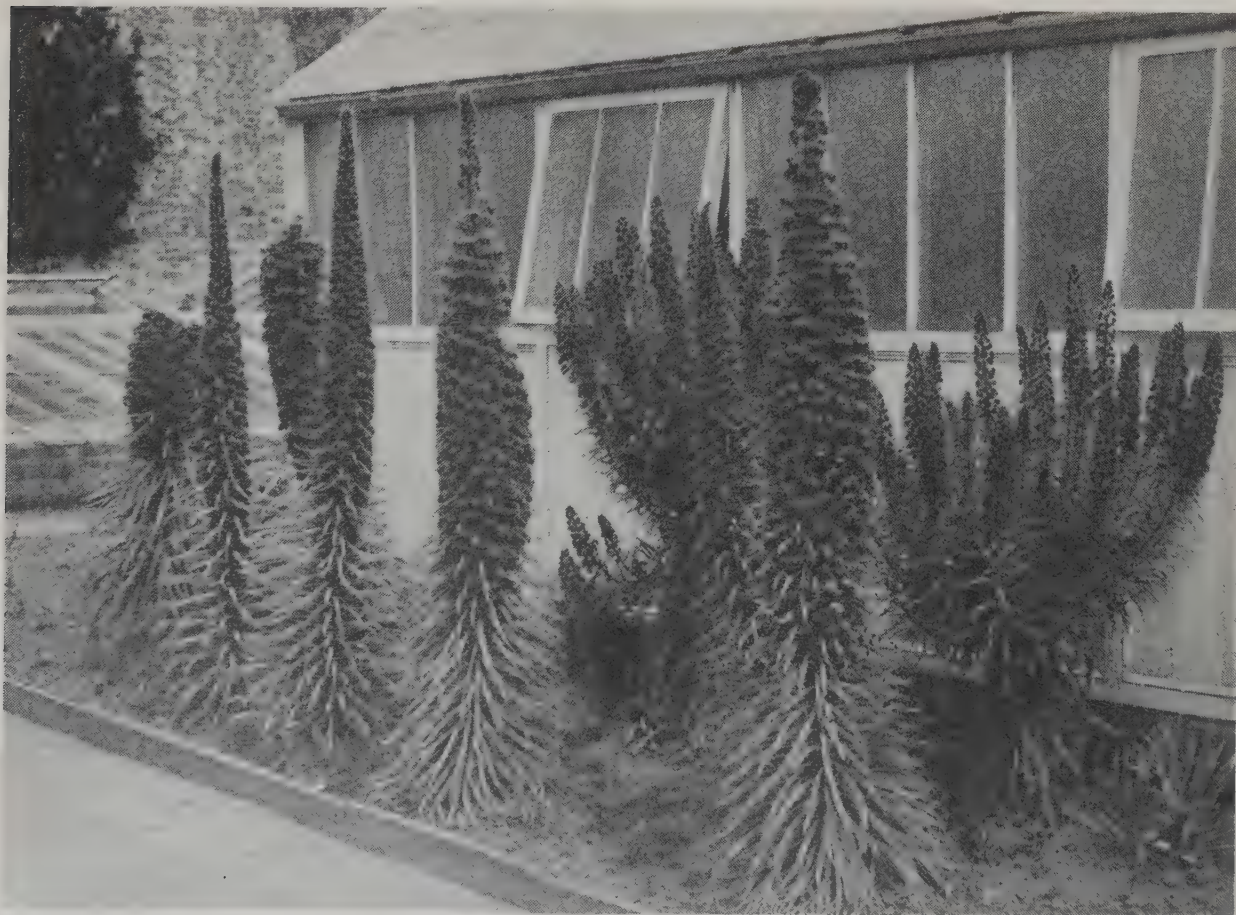
New Varieties of Deutzia crenata.

—The three varieties referred to in "Notes of the Week," in the issue of *THE GARDEN* for May 27, were all raised and distributed by that celebrated hybridist, M. Lemoine of Nancy. According to the raiser they all resulted from the crossing of *Deutzia crenata candidissima* with the comparatively little-known *D. Vilmorinæ*, a native of China. M. Lemoine sent out no fewer than eight varieties of this cross, all of which should in time be generally grown. With regard to *D. Vilmorinæ*, it forms a vigorous shrub 6 feet to 8 feet in height or even more, and is of somewhat erect habit. The flowers, which are borne in broad panicles, are individually about an inch across and pure white in colour. Concerning *D. Vilmorinæ*, Mr. Bean says: "Next to *Deutzia scabra (crenata)*, this species, I think, promises to be the most valuable of *Deutzias*. It is a rapid grower, and its fine flowers escape damage by late frosts better than those of most *Deutzias* do, and usually make a good display. It is allied to *Deutzia discolor*." As all of these *Deutzias* are readily struck from cuttings of the half-ripened shoots, put into pots of sandy soil in July or August, and placed in a frame kept close and shaded, they will doubtless before long be more generally met with.—H. P.



A GIANT ECHIAM WILD-PRETII.

Height, 7 feet 6 inches; girth, 2 feet 8½ inches.



ECHIAM WILD-PRETII SUCCESSFULLY GROWN FROM SEED IN A CORNISH GARDEN.

Tulip Bulbs Eaten by Pheasants.—The illustration that accompanies this note represents a bed of Tulips and double Arabis at Bawtry Hall, Doncaster, in the spring of 1915 after being visited by pheasants. Mr. Hogbin, the head-gardener, told me that fifty bulbs had been planted in this particular bed, and that of this number only five remained to flower. On more than one occasion in an evening he had actually come upon the birds when they were rooting them up. About three years ago I offered to give some Tulips to a market grower who had taken the kitchen garden of a large private house which was then unoccupied, but he said they were no good to him as the pheasants (of which there were plenty) would get the benefit of them and not himself. Evidently the taste for Tulips is pretty universal among these birds.—JOSEPH JACOB.

Green Fly on Roses.—Few, I fear, will agree with Mr. Thackeray Turner when he argues that green fly cannot live on healthy plants. When one surveys American Pillar over 18 feet high with shoots as thick as one's thumb and a mass of laterals full of bud, and notes aphids at every point, we cannot convince ourselves that the plant is not healthy and strong growing. Would that I could keep down fly and other pests by manuring alone! And what of the Apple aphid? Trees in full vigour and pictures of health may in a week be plastered with aphids on every leaf. Surely it is a delusion to imagine that ill-health alone governs the attack of aphids or other pests! [Unhealthy plants are invariably the first to be affected by green fly.—ED.] Can anyone explain the awful visitation of caterpillars this season? Go where one may they swarm everywhere. Green and brown, hairy and non-hairy, loopers and every other form, are sweeping Kent and presumably elsewhere. Oaks are almost defoliated; Poplars, the common "May," Apples, Pears, Plums and even Black Currants all carry their quota; and, owing to lack of labour, many growers have had to see the promise of a great Apple crop swept away in a few days. With so much to do I could only deal with my own few trees after the pest had done much damage, but neighbours near by have nothing left. The trees look as if fire had passed over them.

Tulips Millet and Eclipse.—These fine varieties were specially noted by the enthusiastic scribe deputed to deal with Tulips at the Chelsea Show, and in doing so he certainly demonstrated that THE GARDEN really does control a staff that knows its business. Millet I tried for the first time this season, and it is truly a grand variety, although of rather medium height. Personally, I cannot quite reconcile myself to its being a true Darwin, although listed by Krelage and Son as such. The form is rather more globular and less square-shouldered than the average Darwin. Respecting the variety Eclipse, there seems to be some doubt as to what this variety is really like.

It flowered for the first time with me in 1914, and it impressed me as being the finest of the deep red shades, and only rivalled by Isis. My notes on them, however, were lost, and by the usual way of things both these varieties were so badly damaged by the frosts last March that neither gave me a flower. Consequently I was not able to confirm the impression held by two or three firms which bought a fairly large number of what was declared to be Eclipse, but which was believed to be something else, although unknown. Both Alex. Dickson and Sons and Dobbie and Co. have shown this remarkable Tulip this season, and R. Wallace and Co. also, I believe, their stocks being alike. Maybe their doubt as to its correct name is due to the Dutch description, which is "uniform velvety maroon," and to me this description is erroneous, the colour being much too fiery for a maroon. At all events, Eclipse as offered by the Dutch firms is certainly not new in the true sense of the word, for in 1914 it was quoted at 4s. per dozen retail. It gained an award of merit at Haarlem that year, and a first-



A PHEASANT-EATEN TULIP BED AT BAWTRY HALL.

class certificate at Amsterdam in 1915. Wonderful to relate, the price did not advance after these awards. Personally, I cannot but think there are many synonymous varieties listed, and it is not easy for the small grower to place them with certainty. My own red varieties did so badly this season that it was impossible to compare them. I am, however, pretty well convinced that Leopold de Rothschild and Paris are the same. Both broke this season, very dark flakes, invisible save when closely examined. Feu Brilliant is a good red, while among the lighter or cherry red shades I consider King George V. ahead of many. It is a marvellous grower, as is Prince of the Netherlands. I was pleased to note the reference to Greuze also, for I look upon it as the most satisfactory of all the purples I grow, despite its breaking. This season Greuze was particularly fine, whereas Morales, Sir T. Lawrence, Purple King, Giant, Vespuccio, Viola, Zulu, Miss Potter Palmer, Charles Marot and Gryphus were either very poor or broke up so badly that scarcely a true bulb remains.—T. A. W.

ANNUALS FOR FORMAL BEDS

THE Rev. Joseph Jacob raises an interesting question *re* annuals for filling formal beds in the summer-time. Having tried most of the annuals mentioned in Messrs. Thompson and Morgan's and other catalogues, my experiences may be of some interest to others. Having no glass houses, it was for years a problem how to fill certain formal beds with plants which needed very little attention in winter, and at the same time to conform with certain lines in the beds. Soon after taking charge of these gardens I was desired by my employer to solve the problem. I tried many things, but that which gave most satisfaction and least trouble was a combination of blue and white Larkspurs (Stock-flowered) and Violas, the Larkspurs being sown the preceding autumn in time to be pricked off a few inches apart before winter.

In all schemes of this kind there is one serious drawback, one that cannot be easily got over where a display is required throughout the summer. I refer to the comparatively short life of most annuals. I managed to get over the difficulty by duplicating the plants used by a second and later sowing.

It is an interesting fact that annuals can be transplanted to beds at any time with perfect safety if grown on in soil containing plenty of humus. I have sometimes been obliged to use a spade in the operation. But as this article is intended to help those whose staff is somewhat reduced, it cannot be entertained. With regard to the kinds of plants used, I would give the palm to East Lothian Stocks. Sown in February, they can be relied upon as to colour, and would yield anything above 50 per cent.

of double flowers. There is also another type of Stock I would highly recommend. It is French raised in the vicinity of Nice, and is known as Beauty of Nice. This can be had in several colours. The one I prefer is salmon pink. It is superior to any Ten-week Stock that I have tried, and in many respects superior to the East Lothian variety.

Antirrhinums are excellent for the purpose; they can be had in all heights and colours.

Nemesias are the best subjects for groundwork, and Blue Gem the best variety I know. This should be sown the latter part of March, otherwise it will flower too soon.

Godetias never fail to give satisfaction, but are somewhat short-lived. G. Schaminii flore pleno is the best absolutely, and may be had 3 feet high; moreover, the plants can be raised where they are to flower.

Nicotiana affinis hybrida raised in March does well for the purpose, and when mixed with Clarkias a most charming result is obtained. With regard to the last-mentioned plant, it is apt to be

disappointing if the soil is rich or if it happens to be a wet summer. Salmon Queen is the variety I use, and can be sown in the beds direct.

Kochia trichophylla is a handsome foliage plant, and quite in keeping with the most formal beds sown in February.

Zea japonica might be useful raised in late March.

There are many other varieties of plants that could be tried, but my experience is that most of them will be found wanting in some particular or another; among others, *Delphinium Blue Gem*, *Petunias*, *Asters*, *Salpiglossis*, *Phlox Drummondii*, *Impatiens Holstii*, *Salvia Blue Beard*, *Scabiosa*, *Schizanthus pinnatus*, *S. retusus* and *Stevia Lindleyana*.

With regard to sowing direct in the beds, this, to my mind, is not practical. A far better plan would be to prepare the necessary number of boxes and prick out the plants direct in the beds

Lupinus Hartwegii, blue and white, 2 feet 6 inches; *L. luteus*, yellow, 2 feet 6 inches; and *L. mutabilis*, cream, 3 feet.

S. G. SMALLRIDGE.

The Gardens, Battledene, Newbury.

THE EDITOR'S TABLE

***Pæonia officinalis lobata*.**—Seldom indeed has the Editor's table looked so bright as it has done during the past week or so. Mr. F. Gifford, Hornchurch, Essex, sends a box of that delightful *Pæony* known in gardens simply as *lobata*. It is a real gem among hardy flowers, and a handful of cut blooms placed in a bowl makes a most pleasing picture. The great point about this *Pæony* is the rich colour quality of its cup-shaped flowers. The colour is variously described as coral red, glowing orange scarlet and rich tomato red; but even these descriptions fail to convey in

it is not sufficiently hardy to withstand the winter in all parts of this country.

A Grand Strain of *Primula obconica*.—From Adeline Duchess of Bedford's garden at Woodside, Chenies, Bucks, we have received a box of flowers of *Primula obconica*, which reflect great credit upon Mr. John Dickson, the able and well-known gardener, who for many years has wrought great improvements in this greenhouse flower. Some of the flowers are of a clear blue colour, others fiery red, salmon red, and crimson, but all are remarkable for their immense trusses and large flowers. For some years past Mr. Dickson has been trying to obtain hybrids between this and other species, and from the leaves and flowers we have seen, the influence of *P. sinensis* certainly appears to be present. So far the alleged crosses have been obtained with *P. obconica* as the seed bearing parent. It would be interesting to hear if the reciprocal cross has ever been made, or rather

attempted, for the opinion is held among the leading authorities on genetics that *P. obconica* has never yet been successfully crossed with any other species. The question is an interesting one and whether Mr. Dickson has a hybrid or not, he is to be highly complimented on the excellence of the strain he has obtained.

Hardy Primulas from Duns.—It is a great pleasure to once again receive hardy Primulas, some of which are not often seen, from Dr. Macwatt, Morelands, Duns. Here are the names of some of the most interesting: Single and double green Auriculas, a large bunch; very fine double Auriculas, blues, good reds, yellows, tortoiseshell, maroon and many other colours; *P. × Lindsayii*; *P. × Marven*, rich purple blue; *P. hirsuta* var. *Balfouriana*, crimson, clear pale primrose eye; *P. conspersa*, after *frondosa*; *P. × venusta*; a cross between *P. marginata* and a border Auricula; *P. officinalis* var. *pannonica*; single green Primrose, with petals as green as the sepals; the old Hose-in-hose Cowslip of Parkinson; *P. Parryii*, rich purple black calyx; Bracteate Primroses, including blues; and *P. marginata* var. *Linda Pope*. Dr.

Macwatt also has the two rare species *Primula glutinosa* and *P. nipponica* in flower. The latter we hope to illustrate in our next issue.

NANDINA DOMESTICA

This graceful and interesting small shrub, a native of China and Japan, is hardy in sheltered places anywhere near or south of London. It enjoys a warm place near a wall, where it produces its large panicles of white bloom, although it does not ripen berries as it does in the South of France and possibly in our extreme south-western counties. The Chinese call it the Sacred Bamboo and plant it close to their houses, when it is supposed to bring good luck. It is not a Bamboo, but is allied to the Barberries. Just now, in early June, the young foliage is developing, and is of a fine deep red colour. It grows into neat, well-filled bushes about 5 feet high.

G. J.



A GEM AMONG HARDY FLOWERS, *PÆONIA OFFICINALIS LOBATA*.

when ready, a good deal of such work being done by boys or women.

A list suitable for sowing either way is as follows. I need hardly say I have grown them all, and they can be relied upon to create a display up to the end of August, if not later: *Alyssum maritimum nana* and *A. m. Thorburn's Bouquet*, sown in April for preference, height 3 inches; *Brachycome iberidifolia*, blue, 1 foot; *Dianthus Heddewigii* var. *Pink Beauty*, 1 foot; *D. laciniatus* *Salmon Queen*, 1 foot; *Collomia coccinea*, red, 1 foot; *Bartonia aurea*, yellow, 2 feet; *Leptosiphon androsaceus*, lilac purple, 6 inches; *Lavatera splendens rosea*, pink, 3 feet or more; *Gypsophila elegans*, white, 1 foot; *G. e. rosea*, pink, 1 foot; *Dimorphotheca aurantiaca*, burnished copper, 1 foot; *Linaria Maroccana* *Excelsior* mixed, 1 foot; *L. M. White Pearl*, 1 foot; *Iberis Snow Queen*, 2 feet; *I. Rose Cardinal*, rose, 1 foot 6 inches; *Tagetes signata pumila*, yellow, 1 foot; *Viscaria cærulea*, blue, 1 foot;

anything like adequate terms the refined colour and grandeur of this beautiful *Pæony*. The charm of the flowers is greatly enhanced by their clusters of bright golden anthers. It seems incredible that this glorious *Pæony*, which was known in gardens at least eighty years ago, should almost have dropped out of cultivation. For the last three years at least it has given a wealth of bloom, but it is not every year that it flowers with the same freedom.

***Erica australis*.**—Miss Jekyll kindly sends a spray of the bright pink Southern Heath (*Erica australis*), which grows and flowers so admirably in the Heath garden at Munstead Wood. This Heath, like the better-known *E. lusitanica*, or *codonodes* as it was named by Lindley, grows wild in Spain and Portugal. *E. australis* is worthy of extended cultivation by virtue of the brightness of its colouring when seen in a mass from a little distance, a point referred to by Miss Jekyll in our issue of May 27, page 250. Unfortunately,

NOTES FROM MYDDELTON HOUSE GARDEN

By E. A. BOWLES, M.A., F.L.S.

I OWE an apology to Mr. Farrer's little spuriest *Aquilegia*. I drew it from the first-opened bloom and, I now see, too early in its life to catch it at its most pleasing moment. When fully blown the sepals are raised away from the petals, and stand out in a way that suggests the arms of a Dancing Dervish in full twirl, while the little bell formed by the long petals represents his skirt.

A score or more of these floral Dervishes are produced by each tiny plant at a time, with plenty of understudies in unopened buds to follow when the elders go giddy and drop off, so that a group of them is a pleasanter sight to me than the real Dervishes I once watched in a Cairo mosque. Those I hope never to see again; but the little Columbine is very welcome to prolong its dancing season in my rock garden. I learn that this *Aquilegia* is the same as that sent earlier from China by Purdom, exhibited at the Chelsea Show in 1915 by Mr. Allgrove. It was referred to Kew and declared to be *A. ecalcarata*.

One of the surprises of the garden was the flowering of some *Aquilegia alpina* plants I collected two years ago at Le Lautaret. I have never been in the Alps late enough to see this fine plant in flower, so have only collected plants at a venture, hoping to get a good form. Hitherto all those that survived have proved disappointing, miffy creatures, shy of blooming and short-lived. Even those that bloomed disappointed me, for they were of thin substance and poor colour, a sickly green, shot with a leaden blue.

This season two of my four Le Lautaret plants sent up flower-stems, and I anxiously watched the large green buds as they began to take on a tinge of blue. The sepals sprang apart while still too pale and greenish to take a higher place than the faithful and easily grown *A. Reuteri* from the Roja Valley. But a day's sunshine changed everything, and one morning last week I found the most glorious blue Columbine I have ever seen waving against a background of the grey-green heads of a pretty viviparous grass collected during the same season, but at La Madone de Fenêtre. The two plants that have flowered differ widely. The finer form has wide, flat sepals that keep in good form till they drop, and so go to make up a fine well-filled flower, what Daffodil people would wish to call a broad, flat perianth. The other has charms in a deeper shade of blue on spurs and sepals, and, in the young flowers, a white edge to the petals; but, sad to say, those almost gentian-blue sepals "buckle"—to drop into Daffodil lingo again—before they have been open many hours, and the result is a starry flower that looks poor beside its handsomer sister. Most of the flowers have fallen to pieces now, and sturdy seed-heads are swelling out with promise of a rich harvest of seed. I saw to it that pollen went from one plant to the other, and must hope that no interfering bee will have helped to bring about morganatic

matches with the many forms of *A. vulgaris* growing close by.

Some of these last are hideous enough to ruin any type of family beauty, should an alliance with them come about. I try to go over them annually and root out all the double and liver-coloured specimens, yet still too many appear each season. The doubling may result from



MECONOPSIS
HETEROPHYLLA

From a
drawing by
E. A. Bowles.

my tolerance of a soft salmony pink form that inhabits one mound, and is very pretty there rising up around a silver-leaved Tree Ivy, a red-leaved Japanese Maple, and some crevices full of a pretty fine-leaved form of *Asplenium Adiantum nigrum* from Spain, Saxifrages and other shade-lovers. In the spring this Columbine produces golden leaves that are very effective.

One of the brightest bits of colour in the garden is provided by *Meconopsis heterophylla*. Its brilliant scarlet-orange is only a shade or so paler

than the orange-scarlet of *Geum Borisii*, yet I think most people would agree with this division of colour names, and declare the Poppy orange and the *Avens* scarlet.

The *Meconopsis* is a glorious thing when it can be induced to sow itself and live through the winter. Its young rosettes so nearly resemble that wicked Cress, *Cardamine hirsuta*, that it is not easy to distinguish them if they are intermingled; but the Poppy is of a lighter green, and if looked at closely has a great diversity of pattern in its tiny leaves. It is a bad-tempered thing if sown in pots and turned out, however carefully it is done, the result generally being yellow leaves and fewer and smaller blossoms than on a self-sown plant. Unlike the rest of its family, this and a very closely allied species, *M. crassifolia*, have zygomorphic flowers—that is to say, in botanical parlance, lop-sided or uneven flowers. The stamens often gather to one side of the capsule, as if to give the rich crimson-purple eye a chance to show itself, for their filaments are of exactly the same colour. *M. crassifolia* has not yet been introduced, so this *heterophylla* is the only American species in European gardens.

I longed to pick and make a drawing of *Glaucidium palmatum*, but, having only three stems and only one that flowered, I was afraid of weakening such a precious possession, as the two large leaves must have been taken away from their useful work for the plant. I had always longed to see and grow this strange member of the *Ranunculaceæ* ever since I saw its coloured portrait in Miyoshi's "Pocket-Atlas of Alpine Plants of Japan," but could never hear of its existence in European nurseries. Two years ago Mr. Amos Perry came to see me and, among other treasures, brought me a young plant in flower of the long-coveted *Glaucidium*. Last year it made two stems, but failed to flower, though the leaves were large and healthy, showing it liked the cool peaty bed I had given it. This year came yet another shoot and the one flower, twice the size of the last one, and more beautiful than the pictures in Miyoshi's book and the "So Moku" led me to expect. Can you imagine a plant suggesting a light and graceful *Podophyllum*, the upper of whose large palmate leaves makes a background for a large lilac flower with four petals, a bunch of golden stamens, and two green carpels like a pair of fairy opera glasses? Such is *Glaucidium* when fully open, and as it is about 4 inches across and much the same lovely colour as the lilac *Abutilon vitifolium*, it is a very beautiful and striking plant. The flower is rather boat-shaped, two of the petals being longer and more pointed than the others, and it lasted in full beauty for more than a week.

BUDDLEIA GLOBOSA

How seldom one comes across an old tree of this *Buddleia*, even in this county, where it thrives amazingly for a few years, but does not grow into a tree in the same way as some I knew forty years ago. Trees I knew then had large stems some 30 feet high, and, being well branched, made a fine sight when in blossom. Succeeding severe winters killed the old trees back, making them unsightly; and although many have been raised and planted since, not one has attained anything like the size of those noted. It may be that the extra luxuriant growth due to cultural conditions, is much more susceptible to injury from frost.

South Hants.

E. M.

SOME DELIGHTFUL SPRING SHRUBS.—II.

BY H. AVRAY TIPPING, M.A., F.S.A.

IN May THE GARDEN illustrated three shrubs which I value, and of which I have flourishing specimens. One is *Cornus Nuttallii*, of which it is said (May 13): "It forms an upright shrub 10 feet or so in height." That applies to its young state only, and my example, which only began to flower last year, is now quite 12 feet high, while in its native habitats on the Pacific shores of North America it is a big tree, a specimen crowded with its showy inflorescence and reaching a height of 90 feet being illustrated in last year's Journal of the Royal Horticultural Society. The inconspicuous flower-heads appear in the autumn, with little

work, facing south, indeed, but fully exposed. It grew rapidly, flowered all the summer of 1914, and was still forming flower-buds when winter came. A frost of 15° did not hurt them, and last May they began expanding. For months the flowering continued, and the bush ended by being 7 feet high. But this winter the gales have evilly entreated it. They shook it at the root, they broke its tallest shoots, they seared or blew off its leaves. So I have cut it back to about 4 feet, and do not expect the new growths to develop blooms until summer is well on. Three or four younger examples did not catch the winter's various inclemencies so badly, and one of them

each one nearly half an inch across. After flowering the bush should be thinned out and cut back. In the autumn sufficient new shoots should be tied in against the wall, and thus the tresses of bloom, often 18 inches long, form a cascade falling from a height instead of sweeping the ground, as they are apt to do if tying in has been omitted. This *Veronica*, which is at its best during the second half of May, consorts well with the dark blue of the evergreen *Ceanothuses*. Of them the earliest to bloom with me is *rigidum*, which was a sheet of blue when May opened. The continuous line of inflorescence along its straight, rigid shoots gives it a marked character of its own. It is followed by *dentatus* and *divaricatus*, while *Veitchianus* delays a while so as to continue the family's blooming season well into June, when the deciduous section, such as *Gloire de Versailles*, takes up the running.

A shrub, or small tree, seldom met with is *Edwardsia McNabiana*. *Edwardsias grandiflora* and *microphylla* are better known. Both of these I have growing against south walls, but so far neither of them has shown signs of bloom. This may be a fault of youth, but I hear the same story from friends who have specimens of these shrubs as old as my McNab. That is now a tree 15 feet high, standing in the open, but sheltered from north and east winds. I am fortunate in having, as a wood and water garden, a portion of a limestone gorge, of which the steep banks afford many a choice site for tender subjects, yielding as they do as much protection as a high wall, and yet allowing of free and natural growth. In such a spot the little tree rises out of rocks and spreads around its boughs of elegant evergreen *Acacia*-like foliage, from among which, and especially at the tips of the boughs, hang clusters of substantial butter-coloured flowers during some three weeks of May. It first flowered four years ago. The display was then modest, but in the next two years very profuse, and this year decidedly good. It always ripens its seeds, which hang in brown tassels all the winter. If sown in moderate heat



RUBUS DELICIOSUS GROWING WITH STEPHANANDRA TANAKÆ.

green points at their base. These begin to grow out in the spring. The green tinge gives way to white, so that in May the appearance is of white-petalled flowers 4 inches across. The true flower is the closely packed centre, the showy white growths being a corona of bracts. Their number is uncertain, sometimes as many as six, in which case they are all much of a size; sometimes five, and then one is often broad and two-pointed—a sort of Siamese twin. The points retain the green with which they began five months before the period of fullest inflorescence, which is mid-May.

In another number (May 6) was shown a flowering twig of *Dendromecon rigidum*, and under the title were the words "a shrubby Poppy of doubtful hardiness." Though with me it does not flourish as exceedingly and flower at the same period as it does on the Riviera, where Mr. E. H. Woodall describes it, yet so far it has proved perfectly hardy. I began three years ago with a very minute plant, and I placed it on the open rock-

was in flower on May 20. The flowers are golden and cup-shaped, from 2 inches to 3 inches across, and contrast delightfully with the cool grey lanceolate foliage. I confess the success I have had with it is not universal. Mr. Peto of Iford Manor and Mr. John Williams of Llandaff tell me their plants have succumbed. A high, open situation with good drainage and abundant air and sun appear to me to be the conditions that fit it to go through the ordeal of winter.

In the same sort of situation, but with a wall backing, I succeed admirably with the third shrub recently illustrated, *Veronica Hulkeana* (May 27). In a shady, sheltered spot it goes leggy and weak, often dying away, and creating the idea that survival does not greatly interest it. But give it all the air as well as all the sun, so that it grows hardy and stocky, and it will acquire a healthy habit, with every shoot vigorous and passing from deep evergreen leaves to long, loose tresses of pale lavender-coloured flowers,

they readily germinate, and I have been setting a batch of young plants in likely positions in the wood, as well as distributing them among my friends, to whom I recommend it as a thing which gives good results with little trouble in any Southern garden where there is a fair amount of shelter.

"What Rose is that?" is a question I am apt to be asked as we pass by a bush of *Rubus deliciosus*, and certainly its white five-petalled blooms 3 inches and more across are not unlike those of such type Roses as *Brunonis* or *Wichuraiana*, though the habit of the plant is that of the Raspberry. It should be more used, having every virtue except length of flowering season. There is a bed of it in a quite open and exposed spot at Kew, which proves its hardiness and power of withstanding cold winds, but a sheltered spot adds to the beauty of its appearance. The canes arch over very gracefully, as the illustration shows, and on this depends much of its charm.

The canes, therefore, should not be too numerous, and should not be curtailed. If the plant is doing well, enough canes will be thrown up from the rootstock yearly, in which case all older ones should be cut down in the winter.

If there is a shortage of such shoots, the newest and strongest of the previous year should be retained and just sufficiently pruned back to ensure the growth of side shoots few but strong. This matter of thinning out shrubs to get a loose and graceful effect at the period of bloom is one that calls for much attention and some practice. It is often either neglected or ill done, and the result is a dense, formless mass. An even and general shortening back is exactly what is not wanted, but rather the complete removal of a considerable number of boughs. The freer the blooming habit, the more drastic the thinning, so that the rich tresses of flower may show something of their individual form and character. The young tree of *Pyrus Malus floribundus*, some 12 feet high and across, that is illustrated is a successful example. It was put in as a bush and not as a standard, and last winter was a dense mass of intertwined boughs. I attacked it vigorously, and removed quite one-half of the wood.

I could see by his expression that the gardener thought I had quite overdone it and spoilt one of his best trees. But the result disproves this. There are glimpses of the anatomy visible through the flowering boughs that fling themselves freely about and give an effective "skyline." The knife and the saw should be wielded persistently in the winter by a resolute but experienced hand.

ROSE-GROWING IN TOWN GARDENS

Caterpillars.—Of the many pests that render the Rose-grower's task difficult, the hardest to deal with are caterpillars. The only way to cope with them effectually is by hand picking, and this must be done continuously. If the trees are kept clean, it is easy to detect the damage in its early stages; whereas, when once the leaves have been allowed to become riddled, it is hard to tell when the mischief was done, and much time may be lost in looking for a grub that has already been dealt with. Unfortunately, there are many different species of moths, in addition to sawflies and other insects, which have a preference for the Rose, and as their seasons vary, the larvæ of one kind or another are practically always with us.

Those known as Rose maggots (the larvæ of the Tortrix moth) are among the most harmful because their earliest attacks are upon the buds, which are ruined completely if the insects are not detected at once. These insects seem to have a preference for those Roses of which the foliage has a Briar-like scent. Formerly, when growing Penzance Briars, I noticed that almost every shoot of these was infested with maggot, while the adjacent Rose-bed had escaped the attack almost completely. One cannot grow Briars for the sake of the insect, but observation will show that it has a marked preference for certain kinds, which should receive extra careful scrutiny. The injury caused by caterpillars and the larvæ of the Tortrix moth is all too apparent among Roses this year, and in many gardens in the South the

damage is almost irreparable. As Mr. Edward Mawley pointed out in his timely article on "Spraying Roses" in *THE GARDEN*, issue May 13, page 229, it is far easier to prevent these attacks than to cure them.

Rose Leaf-Scorch is not usually regarded as one of the most serious fungoid pests, but it is very necessary to deal with it in good time, or a great deal of the foliage may be ruined. The disease is indicated by yellowish patches on the leaf where the fungus has killed the tissues, and sometimes these patches will fall out. Leaves that are seen to be affected should be removed and burned, and the tree thoroughly sprayed with fungicide. Any good preventive of mildew is equally effective in treating leaf-scorch, liver of sulphur being perhaps one of the best. I find certain trees especially liable to attack. Grüss an Teplitz is affected year after year, but the disease can usually be got under very quickly by taking prompt measures.

Whoever plants Noisette Roses must wait for several years before he sees them at their best, yet they are worth waiting for. W. A. Richardson, Alister Stella Gray and Mme. Alfred Carrière are kinds that do well in town gardens, and when once they have settled down in their surroundings, there are no Roses that can give them points as regards freedom of flowering.

The Exhibitor should now be giving his plants regular supplies of weak stimulant, but, whether he intends to show or not, the trees will benefit very considerably, and both quantity and quality of bloom will be enhanced, if the grower can find time to soak the beds well with diluted manure water, but care must be taken to see that they are not dry when this is applied. P. L. GODDARD.



PYRUS MALUS FLORIBUNDUS SEVERELY THINNED.

MERODON EQUESTRIS: DAFFODIL FLY

A FEW years ago this fly was known only to a select few, and some of our cleverest Daffodil-raisers were unable to identify it. It was quite amusing to those in the know to receive humble-bees, mason bees, drone flies and a variety of others, including even the yellow dunghill fly. Since those days the fly has forced its identity on all the principal growers of that most delightful of all spring flowers, the Narcissus. Most growers now know *Merodon equestris*, and only those recently commencing lack knowledge of its identification. The fly is not very demonstrative, for you can spend hours in close company with it and not be aware of its presence. Those who can "spot" the fly at sight have a great advantage over those not so fortunate, because they can, on its first appearance, get their net and wits to work and destroy it as fast, or nearly as fast, as it arrives. Those who have sharp ears may distinguish that peculiar droning whistle which indicates the flies' maturity and the perilous season to the grower.

The Season.—The season up to the present has been cold and wet and is consequently late, and, so far as Yorkshire and the North are concerned, the fly up to this date has not been seen. But there is evidence of an early change, and when warmer weather establishes itself, then the *Merodon* will metamorphose rapidly. Where no check has been exercised it will appear in vast numbers, and the faint-hearted may fear they are too many and conclude it is useless to struggle. My advice to such is: Remember the fable of the frogs in a bowl, of milk, put on a cheerful optimism, get out your net and set about their extermination. The first duty is to *prepare at once* and put up a good fight.

My object in this article is to put you on your guard. Be prepared; you cannot lay the matter on one side, as you do a favourite novel, to be picked up when fancy wills; you must be ready and anxious to bag your quarry. From now to July the fly will be strongly in evidence and will need daily attention. If you are careless and indifferent, you will have to suffer later in an increased loss of bulbs. Let me tell you that *Merodon equestris* seems to know which are the most expensive bulbs, and appears to take a fiendish delight in attacking them.

My object now is to help you to identify *Merodon equestris* and to point out the best means for its destruction during the growing season. For your better assistance I have furnished an illustrative plate which belonged to the late Mr. Robert Sydenham. From it you will trace the development of *Merodon* from the egg to the fly.

Let me, then, assume you are on the watch among your Daffodils with a Daffodil fly net, or a butterfly net, in your hand, the sun shining beautifully

clear overhead, and your wistful eyes glance along your beds. The fly is lively, flits and darts with startling rapidity, and your eyes are unable to keep the trail. Do not watch the fly which rushes madly about; keep your eyes on the bed before you and watch the fly that rises and settles again. It is this one you must manoeuvre for.

Now refer to Fig. 1 in the plate; move gently to the spot located with net extended as in Fig. 2; as you advance, poise the net ready to strike. Having located the fly and got within striking distance, gently extend your net over it about 2 feet from the ground. Do not get flurried, but move your hand as though you were attempting the destruction of a wasps' nest. When you

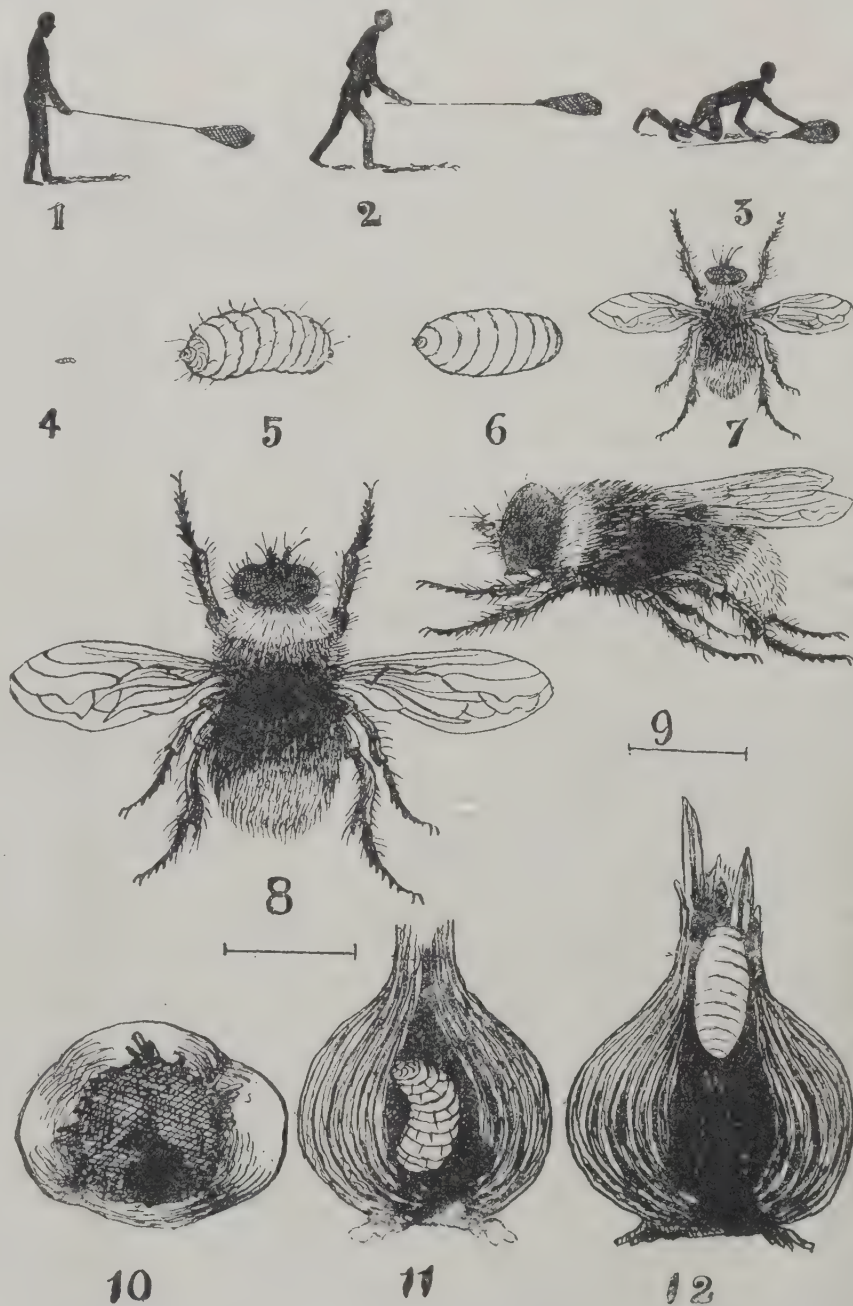
the method of flight is radically different. The bee seeks a flower and dashes into the trumpet; the fly—I was going to say never, but I may say confidently—I have never seen one do so. It may alight upon a Daffodil flower, but will not partake of the Daffodil pollen, which the bee gets dusted with in its search for nectar.

Figs. 8 and 9 are magnified sketches to give a better illustration of visual appearance. The fly is half an inch to five-eighths of an inch long, and the extended wings are an inch across. The female is the larger of the two and can be easily distinguished by its ovipositor. The most helpful method of catching the fly is to examine any breadths of blossom. Though it will not eat Daffodil pollen, it visits nearly all other kinds of flowers for farina. When you have discovered one or more of these rendezvous, keep diligent watch, and you will be able to catch them in greater numbers and in less time than on the Daffodil beds. The Apple blossom is a great favourite, and where the trees are low there is very little difficulty in capturing the enemies. Here do not strike; cover them gently with your net, press them on to the blossoms, and pick them from behind the net. This is the easiest of all ways. Other flowers will provide variation in the methods, but you soon acquire proficiency and become expert. Sometimes you will see flies in wild pursuit on nuptials bent, two or more, like fighting sparrows. At such times a good catch can be made. I have taken many in the net that have rushed up against me and clung to my clothing. The next best method at this time of the year for extermination is to examine the Daffodil beds.

Where a bulb has failed to come up, or where the foliage is weak or deformed, careful search at the bulb should be made. Having exposed the bulb, press it with finger and thumb; if soft and hollow there has been a grub at work. If the bulb is a valuable one, open it with a penknife by cutting away the neck. The pupa should be in the neck; if it is not, cut out the inside of the bulb and search further. If it cannot be traced, it is in the soil or has metamorphosed, and you can leave the bulb or bulblets to take their chance.

Another way is to search the beds for defective foliage, which is a sign of the grub's presence. In this case search the top soil for the pupa, and if not thus found, bare the bulb and ascertain if it has been occupied by the *Merodon* larva. Early in the mornings, when the temperature is low, search the beds for recently turned out flies, which may be found on the foliage waiting for sunshine.

My garden is only one-eighth of an acre, yet I have caught as many as 104 flies in one season. Other Daffodil friends by using the *Merodon* net have quickly made up their century. This time of the year has many and great advantages for destroying this terrible pest. It is not easy to find the small larva in the dried bulb, and thousands undoubtedly pass the most expert examinations; but where



THE DAFFODIL FLY IN VARIOUS STAGES.

feel sure, strike, pinning your catch to the ground. Now is the time to hurry (see Fig. 3). You see the quarry through the net; squeeze out its life by pressing the net on to the soil, or foliage, as the case may be, with the fly as a sandwich. Do not strike where the foliage is dense or the ground very uneven; rather allow the fly to move again. Do not alarm it; above all, exercise patience. The fly seldom goes far, unless alarmed, and will soon present an opportunity for another shot. You will probably say I have not described its colour; no, but you can now refer to Fig. 7, which is a very good natural-sized drawing. The ground colour is black with markings very similar, both in shape and colour, to a worker, *i.e.*, a small humble-bee. The likeness is most striking, but

the fly has been living for a couple of months, detection is easy by reason of the pulpy mass inside the bulb. So take my advice: let your principal effort be against the fly from now till the end of July.

In conclusion, let me urge that this subject is of vast importance; the longer it is neglected, the more powerless growers become. One man's indifference adds to another man's labour and sorrow. Exercise the golden rule, "Do unto others . . ." If I keep my garden free, it is a distinct injury to me if flies from the garden of my neighbour, who is careless, come and breed among my Daffodils.

Remember that each fly is charged with sixty ova, hence fifty females may deposit eggs among your Daffodils to the number of, say, 2,000. Thus you will perceive that for each female killed before ovipositing, something like twenty to thirty bulbs are saved from larval depredations, which, I think you will be prepared to admit, is an unanswerable argument in favour of my method of extermination. If, therefore, you will clear your own patch, you will have done your duty, and you can then urge your near neighbours who grow Narcissi to go and do likewise.

Before lifting-time I will furnish instructions to assist in getting rid of the larval grub during the time for lifting, cleaning, packing and planting.

G. Stocks.

THE SUNDIAL IN THE GARDEN

"Serene he stands among the flowers,
And only marks life's sunny hours,
For him dark days do not exist—
The brazen-faced old optimist."

IN this strenuous age it is idle to hope for the return of those halcyon days of leisure enjoyed by our forefathers, when hunger sounded the dinner bell and drowsiness rang the curfew—days of which the sundial is a mute memorial. As Charles Lamb, in his inimitable way, wrote: "It was the measure appropriate for sweet plants and flowers to spring by; for the birds to apportion their warblings by; for flocks to pasture and be led to fold by. The shepherd carved it out quaintly in the sun, and, turning philosopher by the very occupation, provided it with mottoes more touching than tombstones."

At the present time there is a welcome revival of interest in the sundial, and it is being largely utilised in the scheme of decoration in many a garden, or, occasionally, leaded into the windows of the homestead. Many of the newer dials are being constructed after the style of the older examples, which speaks volumes for the artistic

taste of the workmen of the fifteenth and sixteenth centuries.

There is nothing more depressing than to see a sundial shrouded in the fog and smoke of a large city, with scarcely a gleam of sunshine to cast a shade upon the "figured plain." Under such circumstances the words of Richard Jefferies are very appropriate: "Let the shadow advance upon the dial. I can watch it with equanimity while it is there to be watched. It is only when the shadow is not there, when the clouds of winter cover it, that the dial is terrible."

The mottoes to be found upon the dials are very interesting. As a rule they are quaintly beautiful, occasionally dictatorial, but always to the point. A sundial motto should be as short as a poesy on a ring, as clear as the sun that shines on the dial's face. The following are typical examples:

"I count time!—dost thou?"

"Light and shadow by turns but always love."

"Come light! Visit me!"

"Begone about your business."

"I count the bright hours only."

"Haste! oh haste! thou sluggard haste
The present is already past."

Sundials are the only instruments which give us the correct time, and clocks and watches are but make-shifts which an Act of Parliament can alter and re-alter as its authors think fit. HENRY WALKER.



THE SUNDIAL AT HUTTON-IN-THE-FOREST, CUMBERLAND.

MUNICIPAL ROSE GARDENS

III.—PARK HILL, CROYDON

BY A MEMBER OF THE COMMITTEE OF THE CITY OF LONDON ROSE SOCIETY.

CROYDON, the well-known sleeping-place of London, has long held a reputation for the number of its open spaces and recreation grounds, and was one of the first of local authorities to give support and encouragement to the establishment of a municipal Rose garden. In the autumn of 1915 the Croydon Horticultural Society approached the Parks Committee of the Croydon Council with a view to obtaining permission to form a Rose garden in the Park Hill Recreation Ground. Consent was readily given, and no time was lost in preparing the plans, making the beds, and planting the Roses. An offer from the City of London Rose Society to co-operate with the Croydon Horticultural Society was accepted by the latter, and under the joint ægis of the two societies this Rose garden should be well cared for.

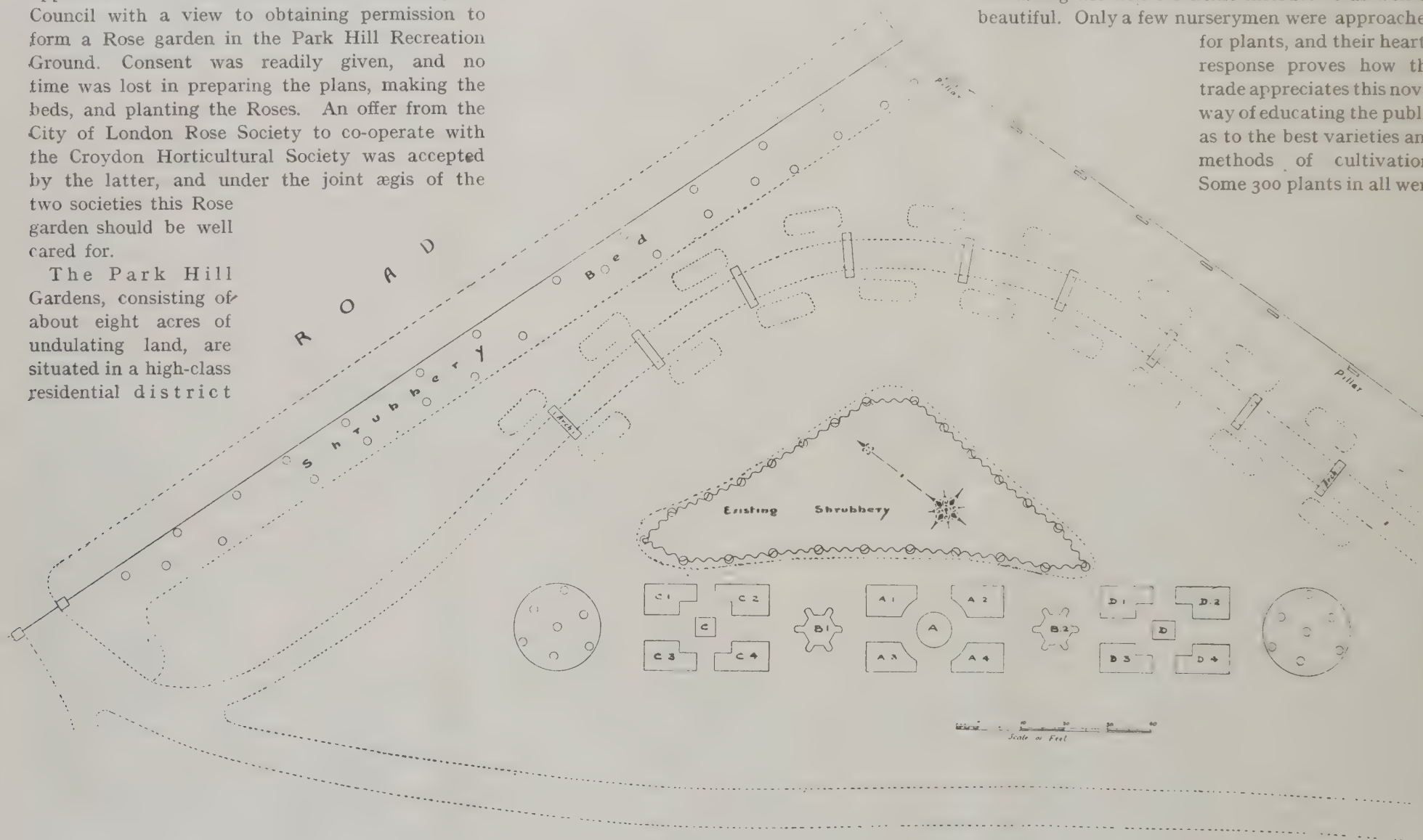
The Park Hill Gardens, consisting of about eight acres of undulating land, are situated in a high-class residential district

manure was added, and the beds filled up to the required level with good and well-matured top spit material. The old existing Rose-beds, which were in too close proximity to the trees, were turfed over, and the new beds cut towards the centre of the site and as far as possible away from the trees.

while four plants of a different variety will ramble unchecked over the ground. Gardenia with Minnehaha in the one bed and Alberic Barbier with Dorothy Perkins in the other will, in a couple of years hence, give a grand display of bloom. Sufficient space has been left for these beds to be enlarged to 30 feet diameter.

Round the central shrubbery, weepers of Dorothy Dennison have been planted alternately with Evangeline, the latter to be trained up to each weeper in the form of festoons. Nine arches of American Pillar cross the subsidiary avenue, and in front of the back hedge a row of Tea Ramblers has been planted to be formed into tall double pillars. In the shrubbery bed, running parallel to the road, spaces were found for many Rose species, Penzance Briars, &c., with a view to making the whole scheme instructive as well as beautiful. Only a few nurserymen were approached

for plants, and their hearty response proves how the trade appreciates this novel way of educating the public as to the best varieties and methods of cultivation. Some 300 plants in all were



THE PLAN OF THE ROSE GARDEN AT PARK HILL, CROYDON.

within five minutes' walking distance from East Croydon Station. The selection of a site for a municipal Rose garden is by no means an easy matter. Recreation grounds devoted to playing games must not be interfered with, trees must not be cut down, and, during these anxious days of war, labour and material must be reduced to a minimum.

From the plan it will be seen that a large shrubbery bed forms the background towards the road and a subsidiary avenue radiates from the main one; while in the centre between the two avenues stands a thick plantation of shrubs. The original soil consisted of a top spit of loam on a subsoil of pea gravel. All the new beds were dug out to an average depth of 3 feet; a layer of clay about 8 inches thick was placed in the bottom of each bed, upon which was laid 6 inches of old stacked turf; a 6-inch coating of cow-

In the centre circular bed (A) Frau Karl Druschki is planted, surrounded by four beds (A1, A2, A3, A4), all of red varieties—General Macarthur, Ecarlate, Warrior and Lieutenant Chauré. At B1 and B2 are six plants of Diabolo, each of which groups it is intended to train in the shape of balloons or crowns. Next to these on the one side are beds (C1, C2, C3, C4) of Pharisæer, Molly Sharman Crawford, La Tosca and Mrs. Herbert Stevens, with a small centre bed (C) of Jeanne d'Arc; and on the corresponding side are beds (D1, D2, D3, D4) of Mrs. E. G. Hill, Dorothy Page-Roberts, Mme. Abel Chatenay and Lady Ashtown, with a small centre bed (D) of Ellen Poulsen. At each end of these groups a large circular bed about 24 feet in diameter has been made for Wichuraianas to roam in, three plants to disport themselves up poles forming a tripod,

presented by the well-known firms of Mr. George Prince of Oxford, Messrs. Frank Cant and Co. of Colchester, Messrs. D. Prior and Son of Colchester, and Mr. Thomas Butcher of Croydon. The Croydon Horticultural Society also voted a sum for the purchase of the climbing varieties.

The plants were hard pruned at the end of March and are now making good growth, although a profusion of bloom can hardly be expected in the first year. An illustration was afforded as to the education of the public by the questions of interested spectators at pruning-time.

The few beds that have been planted are but the commencement of the scheme, which it is hoped to develop considerably during the coming years. Promises have already been given by burgesses of Croydon to defray the cost of planting more beds with Roses.

OAKSTEAD.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

Morello Cherries.—The new shoots must now be finally thinned or stopped. Do not overcrowd the wall, and while the fruits are still green attend to cleansing the trees, as aphides soon obtain a good hold and do irreparable damage.

Apples.—In some instances there is a heavy crop of fruit, especially on some young trees. Such examples ought never to be allowed to produce a large quantity of fruit, so if fine fruit is required, a certain amount of thinning must be resorted to. Moreover, the young trees will also benefit.

Summer Pruning.—Both young and trained trees will need a little summer pruning or pinching. The shoots that are necessary for extending the tree should be left intact, but side growths may have their tips removed.

The Kitchen Garden.

Potatoes.—Keep the soil between the rows well hoed, and continue to earth up any plants that are sufficiently advanced.

Runner Beans.—These will now require staking, and the space between the lines must be kept free from weeds. A mulching of long manure or lawn grass will tend to keep the soil moist.

Parsley.—This is needed almost daily, and a sowing should now be made for producing a winter supply. It must be sown so that a frame can be placed over it later on, especially if we experience hard weather. Cut out the flowering stems of old plants, but directly the spring-sown crop is ready for use the old plants can be destroyed.

Celery.—This should be planted out when large enough for removal from the nursery bed. Select, if possible, a showery period; but if the weather is dry, water the roots freely. To prevent an attack of the Celery fly, give the leaves an occasional dusting of soot or well-slaked lime.

The Flower Garden.

Roses.—In the Rose garden a watch must be kept for maggots and aphides. The best method of destroying the former is to press them between the finger and thumb, and the latter must be destroyed with some insecticide. We use Cyllin Soft Soap, and if the plants are sprayed late in the afternoon, no harm will accrue. It is also an excellent specific for mildew. All suckers must be removed, and the beds mulched if the weather is exceptionally dry and hot.

Plants for Spring Bedding.—In addition to seeds, many plants utilised for spring bedding may be increased by means of cuttings. They embrace the double Arabis, Aubrietias and perennial Candytuft; while double Daisies and some of the Saxifrages may be propagated by division. Hand-lights or cold frames in which some sandy soil has been placed are ideal for rooting the cuttings, which should be shaded for the first few days. Polyanthus may be transplanted on a partially shaded border.

Plants Under Glass.

Salvia splendens.—The plants are almost ready for their flowering pots, and a fairly rich compost should be employed. For a few weeks arrange them in a cold frame, and afterwards plunge the pots in ashes outside. Do not pinch the shoots after this date, or the flowering growths will be small. When the pots are filled with roots, feed the plants liberally.

Zonal Pelargoniums.—For producing a fine display throughout the year Zonal Pelargoniums have few equals. Those in the show-house ought not to be heavily shaded, and they must be kept well supplied with water. Young plants propagated last March must be moved on into larger pots, making the soil quite firm. They should be grown outside during the summer months, selecting a sunny position. Remove all buds as they appear, and pinch the shoots to encourage a bushy growth.

Fruit Under Glass.

Early Peaches.—The fruits will now have been gathered from some of the permanent trees,

and the borders should be given a thorough watering. Where red spider is present, it will be necessary to give the trees a spraying with some reliable insecticide and a daily washing from the hose-pipe. All the ventilators must be kept open both day and night.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Seakale.—Young plantations of Seakale for use as forcing roots next winter ought now to be far enough advanced in growth to require attention. The crowns will have produced numerous small growths, and these should be reduced to one on each crown. Stir the ground between the rows and give a dressing of artificial manure. A light dressing of common salt is also of some advantage.

Chicory.—If this is required for winter salads, seeds may be sown now in rows about 18 inches apart, and the plants afterwards thinned out to about 9 inches; these will produce good roots for forcing.

Endive.—The present is also a suitable time for sowing the main batch of Endive. This succeeds best if the seed is sown on a light, sandy soil, and when thinning out the plants a portion may be pricked off; this gives a longer succession of crisp heads from one sowing.

Coleworts.—Sow seeds of these on a cool border. The small, fresh heads will be much appreciated in late autumn after the Peas and Kidney Beans are over for the season.

Cauliflowers.—The main batch of the autumn varieties should now be quite ready for planting out. Autumn Mammoth is our best main crop variety, producing immense heads of the finest quality. To obtain the best results, they should be planted on a deep, rich soil. It is a mistake to suppose that during showery weather is the best time to plant out this or any other of the Brassica family. They invariably succeed best if planted during dry weather, and if after twenty-four hours they have not had a shower, a little water applied to each plant will give them all the start they require. The earliest batch should soon be ready for cutting, and successional batches growing freely ought to have the soil frequently stirred between the lines. Before the leaves have quite met between the rows, the soil should be drawn up towards the necks of the plants. Those possessing one of the "Planet Junior" combination implements will find it a good labour-saver.

The Flower Garden.

Roses.—A careful watch should be kept on these for any appearance of aphids or mildew, which must be checked at once. Recently planted Roses may require a mulch of short manure if the weather continues dry. Climbing varieties should have their growths thinned and regulated. Free-flowering varieties of the China section used for bedding purposes, if required only for an autumn display, must be pinched or cut over before their usual flowering period.

Herbaceous Borders that are well filled with established plants will require liberal supplies of water during any protracted drought, and if no top-dressing of manure has been already given, some liquid manure should be applied along with the water.

The Rock Garden.—During hot, dry weather many of the occupants of the rock garden will suffer unless given water frequently; this is best applied towards the evening. As the spring-flowering subjects become exhausted, many of these will not be required for another season, and should be pulled out and their places filled with summer or autumn flowering subjects, or the soil renewed to accommodate young, fresh plants from the reserve frames. Strong-growing plants must be kept strictly within bounds, or they will smother their weaker neighbours. Remove all weeds and decaying flowers, and sprinkle fine soil among those plants that are always showing roots near

the surface. Small stone chips should be on the surface of dwarf flowering subjects, otherwise the flowers will get splashed during heavy rains.

Fruit Under Glass.

Strawberries.—The latest batch of these in pots will require but little artificial heat to ripen them at this date, cool houses or frames giving sufficient shelter. Preparation should now be made for securing runners for early forcing next year. The earlier this is done the better to secure strong, plump crowns thoroughly established. The best runners for the purpose are those secured from plants put in either last autumn or early this spring for the express purpose of providing runners. All the flowers should be removed from the stock plants. The runners may be layered in small pots filled with good loam and plunged at convenient places between the lines, and held in position by means of pegs or stones. The pots ought to be watered daily, and as soon as they are well filled with roots the runners should be severed from the parent plants and potted into their fruiting pots.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

PERPETUAL SPINACH

ALTHOUGH still unknown to many gardeners, in some districts this is a well-established favourite vegetable, and for all-the-year-round results I question if a more profitable one could be named. It gives satisfactory results on soils of almost any description, a compliment it is not possible to pay to either of the Round-seeded or Prickly varieties; in fact, after a trial of almost every so-called variety which finds a place in seed lists to-day, I am of opinion it is almost a waste of time and seed to sow these for summer use on our hot, dry, sandy soil, for, unless the season is exceptionally showery, it is very rare we gather more than a single picking from these. On the other hand, no matter when the seed is sown, the above is certain to give good results. In fact, three sowings invariably suffice for a whole year's supply for a family whose liking for this is more pronounced than for almost any other green vegetable; and although visitors are numerous, it is very rare we get one having anything but praise for a dish of this when properly handled by the cook. Seed may be sown any time from March to September. A highly manured soil, although not absolutely necessary, is recommended. The distance between the rows should be not less than 15 inches, and after the final thinning of the young seedlings (which make an excellent dish) the plants to form the bed should be at least 9 inches apart in the rows.

F. R. CASTLE.

EDITORIAL NOTICES

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS

FLOWER GARDEN.

VERONICA TO NAME (*M. T. E., Surrey*).—Yes; the flower you send is that of the beautiful *Veronica Hulseana*, recently illustrated in *THE GARDEN*. We are not certain if it is now flowering at Wisley, but we think it very probable. In any case it flowers well in many Surrey gardens, and we recently saw it in full flower against a wall on a south slope in a garden at Ewhurst. From the flowering spray you send, we think the plant must be doing well. It seldom makes luxuriant growth, but it likes a sunny spot, and you might with advantage remove some of the surrounding shrubs.

ENGLISH IRISES (*A Lancashire Reader*).—There are two well-marked types of bulbous Irises—those known as *I. Xiphium* or Spanish Irises, and *I. xiphoides* or English Irises. The first named are the earliest to flower—early June usually—and are characterised by quite small bulbs, rather grassy foliage, sparsely produced, flower-stems from 1½ feet to 2½ feet high, and shapely flowers embracing white, pale and deep yellow, blue of several shades, bronze, &c. The English Irises have much larger, rougher-coated bulbs, sturdier stems, decidedly stronger, arching, pronouncedly channelled foliage, bolder, broader-petalled flowers, and a colour range largely in blue, purple, reddish violet and shades akin, with not a few whose flowers are splashed or marbled. These succeed the Spanish kinds by about a fortnight; hence both are valuable. The English Irises prefer a stiffer, moister soil than the Spanish, the latter being the most popular in decoration. Then there is a modern set of bulbous Irises called "Dutch Irises," which, while earlier than either of the others named and embracing a fine colour range, are likely to take a leading place in the garden. These precede the Spanish in flowering by ten days or so, the flowers, of a glorified Spanish type, being very handsome. Early autumn is the best time to plant them, when they are best obtained in the dry state from the dealers in bulbs. They are quite hardy, but generally are best if lifted each year in July and cleaned and rested for two or three months.

THE GREENHOUSE.

BULBS ON THE STEMS OF FREESIAS (*A. L.*).—The formation of bulbs on the stems of *Freesias* is not very unusual, as we have known of other varieties sometimes doing the same. If, however, your white one invariably does so, it is certainly very much out of the common. We cannot quite make out from your query if this is so or not.

ANOPLOPHYTUM KRAMERI NOT FLOWERING (*A. de G.-V.*).—This, which is by some authorities included in the genus *Tillandsia*, and by others in *Vriesia*, is a native of Brazil, and requires the temperature of a warm house for its successful culture. It should be potted in a compost mainly consisting of fibrous peat, with a little sphagnum moss and silver sand. The pot in which it is planted must be well drained. It needs to be freely watered, especially during the growing season, but at all times the soil must be kept moist. Water will frequently collect in the cup-like centre of the plant formed by the vasiform-shaped leaves, but it need not be emptied out except in the depth of winter. The probable cause of your plant not flowering is that, being suspended from the roof without anything in which to root, it does not receive sufficient nourishment, and is therefore too weak to bloom. In a state of Nature it is found most frequently as an epiphyte on the branches of trees, in which case the roots run in the vegetable debris collected in the forks and similar places. If you treat your plant in a more liberal manner, as above advised, it will, in all probability, gain strength and flower in due course. It may also be successfully grown in a suspended basket, in which case the same compost and treatment as recommended for pot culture should be followed.

MISCELLANEOUS.

MANURE FOR POTATOES (*H. B. H.*).—We are glad of the opportunity of helping you in a small way in the good work you are proposing to do for the Red Cross. It will be an advantage if you can spare a little of the manure you mention to place at the bottom of the trenches before planting begins; it will help to give the Potatoes a good start. The following has been proved to be one of the best special manures for Potatoes, and is recommended by Dr. Griffiths: Superphosphate of lime, 7lb.; nitrate of soda, 3½lb.; kainit, 3½lb. Mix well together and scatter half of it over the bottom of the rows before planting. Scatter the second half on the surface of the soil round the plants when they are about 5 inches high and just before they are earthed up. The above quantity is sufficient for a rod or perch of soil.

NAMES OF PLANTS.—*E. H., Hereford*.—1, *Iris pallida*; 2, *I. flavescens*; 3, too much faded to recognise; 4, *Doronicum plantaginifolium*; 5, *D. Columnæ*; 6, *Armeria maritima Lauchiana*; 7, *Veronica cinerea*; 8, *Limnathes Douglasii*; 9, garden Pink, probably Mrs. Sinkins; 10, *Saxifraga granulata flore plena*; 11, *Cerastium Biebersteinii*; 12, *Saxifraga canaliculata*.—*E. M. M. H.*—*Primula involucrata* (Himalaya).—*H. G., Sussex*.—*Neottia Nidus-avis* (Bird's-nest Orchis). This is the normal condition of the plant.—*E. K. T.*—1, *Cytisus sessilifolius*; 9, *Erodium Manesavii*.

OBITUARY

GEORGE WYTHES, V.M.H.

BY the death of George Wythes, which occurred recently at Folkestone, where the funeral took place, we mourn the loss of a well-known and highly-respected British gardener. For many years his energies were devoted to the upkeep of the historic gardens at Syon House, where he carried out many great improvements. He was very skilful in management and in the raising of new vegetables, and was an accomplished judge. Mr. Wythes retired from the management of the gardens at Syon House in the autumn of 1906.

At one time, when he enjoyed good health, he was a regular contributor to these pages, and his notes on vegetables, of which he was a recognised authority, were greatly appreciated. He was also part author of "Vegetable Growing Made Easy," an authoritative work published by *Country Life*



THE LATE GEORGE WYTHES, V.M.H.

and included in the *Country Life* Library. He was the raiser of many Potatoes; including Syon House, Prolific, English Beauty and Main Crop, also Beans Progress and Early Favourite, and the autumn Cabbage St. Martin. At one time he had the management of the gardens at Alnwick Castle as well as those at Syon House, and previously he was gardener at Teddesley Park in Staffordshire. By perseverance and true devotion to duty the deceased did an immense amount of useful work, particularly in connection with the improvement of kitchen garden crops. He was a Victoria Medallist of Honour, a member of the fruit and vegetable committee of the Royal Horticultural Society, and for many years a member of committee of the Gardeners' Royal Benevolent Institution.

CHARLES SCOTT.

We regret to announce the death, on May 26, of Mr. Charles Scott, head gardener at Terraughtie, Dumfries, in the employment of Mr. W. J. Herries Maxwell of Munches for a long series of years. Mr. Scott, who had been in failing health for some

time, was compelled by illness to retire a short time ago, and went to reside at Terraughtie Cottage, on the estate. He was gardener to Mr. Herries Maxwell at Terraughtie before he succeeded to Munches, and was so much esteemed by his employer that he remained in charge during the time the mansion was occupied by successive tenants, who held him in equal esteem. Mr. Scott was an able, all-round gardener, but took special interest in florists' flowers, which he cultivated with much success, and of which he was a highly competent judge. He took a warm interest in local horticultural movements and was a member of committee of several. He was much sought after as a judge at local and other flower shows. In other circles Mr. Scott was highly respected for his sterling character, and this was shown by the large attendance at his funeral at Troqueer Churchyard on May 30.

SOCIETIES

WAR HORTICULTURAL RELIEF FUND.

MEETING AT THE SPEAKER'S HOUSE, WESTMINSTER PALACE.

IN aid of the Fund being raised by the Ladies' Committee on behalf of the horticulturists of Belgium, Northern France, Serbia and Poland, Mrs. Lowther most generously offered to hold a meeting by invitation at the Speaker's House, and undertook to make the necessary arrangements. The meeting was held on May 24 at 5.30 p.m., and was attended by such a large number of visitors that it was necessary to hold an overflow meeting as well as that which was originally arranged.

The Right Hon. Lewis Harcourt kindly took the chair, and in appealing on behalf of the object of the meeting drew attention to the skill of the Belgians in horticulture and to the indebtedness of British gardeners, both of the present and of the past, to the horticultural enterprise of Belgium.

The President of the Ladies' Committee, Lady Northcote, C.I., appealed on behalf of the Fund, and in the course of her speech showed, by reference to Belgium, the high degree of perfection which the horticulture of our Allies had reached when war broke out. Each part of Belgium specialises in some branch of horticulture, and the interruption of the trade, and the damage done to horticultural stocks and plant, is so widespread and grievous that unless help is forthcoming when peace is restored, the countryside will be faced with ruin. No help can be given which is more likely to be productive than that which enables the small cultivators to re-start their industries at the earliest possible moment.

Sir Harry Veitch, V.M.H., in supporting the appeal, expressed the gratitude of the Council of the Royal Horticultural Society to the Ladies' Committee and the President, Lady Northcote, for the splendid services which they were rendering in connection with the Royal Horticultural Society's War Horticultural Relief Fund. He drew attention to the fact that the Council of the Royal Horticultural Society was by no means confining its energies to obtaining funds for the relief of horticulturists in the countries of our Allies. Many months ago, the Council, realising what a large scope exists for growing vegetables and flowers in the grounds attached to the hospitals and base camps in Flanders, entered into communication with the Commanding Officers of the hospitals and camps and offered to supply them, free of charge, with the necessary seeds and plants. The offer was accepted enthusiastically, and during the last few months many hundreds of consignments of vegetable seeds, flower seeds, flowering shrubs, evergreen shrubs, Roses, &c., had been sent to over fifty of the largest hospitals and base camps. He read communications from the Commanding Officers showing how greatly these gifts are appreciated and how much the seeds and plants are doing to provide convalescent soldiers and others with occupation, enabling the camps to obtain adequate supplies of fresh vegetables and beautifying what would otherwise have been barren and desolate tracts of country. He ventured to think that with the knowledge of these facts before them, the visitors at the Speaker's House would be encouraged to contribute to the full extent of their powers to the object for which the meeting was called.

A vote of thanks to the chairman and speakers was proposed by Field-Marshal Lord Grenfell, G.C.B., G.C.M.G., who referred to his visit last autumn to the Front. He found that the officers in charge of the camps were most anxious to do something to improve the grounds under their charge, and accordingly the Council of the Royal Horticultural Society issued an appeal for bulbs to the horticultural trade. As a result of that appeal, upwards of a ton and a half of bulbs were despatched for planting in the hospital grounds in Flanders.

THE GARDEN.

No. 2326.—VOL. LXXX.

JUNE 17, 1916.

NOTES OF THE WEEK

THE Crop Reporters of the Board of Agriculture and Fisheries, in reporting on agricultural conditions in England and Wales on June 1, state that Potato planting has been very late, and is not yet completed in the North. Very little of the main crop is as yet showing above ground, but what is up appears to be satisfactory, and the early kinds are looking well. Very little damage from frost is reported. The area planted is somewhat below last year's acreage—perhaps by nearly 5 per cent.

The Prevention of American Gooseberry Mildew.—We direct the attention of readers to Dr. Horne's report on page 302 on the prevention of the early summer outbreak of this disease. The Wisley experiments have this year given most striking results, which ought not to be overlooked. The exhibit of sprayed and unsprayed Gooseberries at the last meeting of the Royal Horticultural Society was most instructive in teaching the great value of early spraying with the modified form of Burgundy mixture recommended by Dr. Horne.

Employment of Soldiers on Agricultural Work.—We are asked by the Secretary of the Board of Agriculture and Fisheries, 4, Whitehall Place, to make the following announcement: Farmers who desire to obtain the assistance of soldiers for work on the land are reminded that they should apply to the local Board of Trade Labour Exchange (the address of which can be obtained from any post office) for the necessary application form. A soldier cannot be released to work continuously on a farm, and not more than four consecutive weeks' furlough will be given to any one man. If a farmer lives in the neighbourhood of a military station, there is no objection to his applying direct to the Commanding Officer for the soldiers whom he requires at short notice and for a period not exceeding six working days.

Horticultural Club.—The members and friends of the Horticultural Club will visit Friar Park, Henley-on-Thames, on Thursday, June 22. The party will leave Paddington at 9.15 a.m., and proceed to Marlow Station. A launch will be waiting at Marlow to continue the journey to Henley, where the President, Sir Frank Crisp, Bart., will entertain the members at lunch. An inspection of the gardens at Friar Park will afterwards be made. Members who may wish to get back to town early will return to Paddington by train from Henley, but the rest of the party will proceed by the launch to Reading for the return journey to Paddington.

Lily of the Valley Grown on Board H.M.S. "Roxburgh."—The accompanying illustration of a bowl of Lily of the Valley is prepared from a photograph taken on board H.M.S. *Roxburgh* and sent to Robert Sydenham, Limited, Birmingham, and the firm very kindly forwarded it on to us. The photograph was accompanied by the following note from Mr. George Wilson, dated May 11: "I thought you might like to see a photograph I had taken on board this ship of the Lily of the Valley crowns you sent us some months ago, which I consider, having been grown in my cabin, to have been very successful. The crowns were ordinary ones, I believe; not retarded. The Begonias are only just beginning to come up.



LILY OF THE VALLEY GROWN ON
H.M.S. "ROXBURGH."

Is this an unduly long time to take?" There is no need for our naval friend to grow impatient with the Begonias, which are showing themselves and doubtless growing nicely by this time. We hope that he will be as successful with these as he has been with the Lily of the Valley.

Rose Prince de Arenberg.—This variety, long since discarded by many gardeners, made its way to America two or three years ago, and has since come to the front as a great forcing variety, which goes to show that one can never safely write down a Rose as a wastrel. Somewhere on the earth there is a spot where certain Roses prove supreme, and it is interesting to note that many which prove useless here are great

favourites in America. George Arends, for instance, a poor thing here, is a gem for American gardens, and many others are in a similar category.

The Bog Bean (*Menyanthes trifoliata*).—Summer is generally near at hand before the flowers of many of our water plants appear, and one of the first to greet us is the Bog Bean. Although one of our native plants, its beauty is to be compared with many choice exotics. It delights in the bog garden where it can send its rhizomes into the soft mud. Its great trifoliate leaves are pretty, but much more so is the spike of white bearded flowers, every petal being covered with little hairs.

Indigofera australis.—This leguminous shrub is very suitable for training on a balloon trellis, or for training up the wall of a corridor. Grown as it should be in a cool structure, it will yield a plentiful supply of its rosy purple, Pea-like flowers during the month of March or April. The plant is not very particular as to soil, but turfy loam with the addition of some good flaky leaf-mould and sand suits it well. Care should be taken that the wood is well ripened.

Pentapterygium serpens.—This dwarf evergreen shrub, hailing from the Himalayas, is well worth a place in the conservatory, even in these days when hard-wooded plants generally are taboo. The shiny, deep green leaves are attractive at all seasons, and the wax-like, tubular flowers, of brightest red with green calyx, and freely borne along the under side of the slender, recurving branches, Solomon's Seal-like, remain in good condition for a long time during spring. The plants should be grown in peat.

"Those who Live in Glass Houses."—Seeing our notice in a recent issue of *THE GARDEN* about the term "glass houses," a correspondent writes to say that the origin of the saying has nothing to do with greenhouses, as many might easily think was the case, but that it arose out of an episode in the reign of James I. Buckingham, who had a large house in St. Martin's Fields which, from the number of its windows, was called the "Glass House," seems to have instigated certain persons to break the windows of some of the Scots who came to London with the King. They, in turn, retaliated on the courtier, who thereupon complained to James. "Steenie," he said, "those who live in glass houses should be careful how they throw stones."

* * * Owing to the shortage of paper, readers who have not already done so are asked to order *THE GARDEN* to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Epipactis latifolia.—In your issue of May 20, page 240, you have an illustration of *Epipactis latifolia*. I found a specimen of this in West Somerset, three years ago, in a narrowcombe on the south side of Dunkery Beacon. Is it often found growing in England? I could not find out that anyone in the neighbourhood had ever seen or heard of it before.—H. H. P. BOUVERIE. [*Epipactis latifolia*, otherwise known as the Broad-leaved Helleborine, is fairly well distributed all over the country, usually growing in woods.—ED.]

Solanum crispum Clothing a House.—Mr. Avray Tipping in his article on shrubs, in your issue of June 3, does not mention *Solanum crispum* as anything but a good shrub for growing as such, or on a wall or pergola. I find it wonderful for clothing a house, as here one planted in the courtyard, in a south aspect, is, after a little over a year and a half, 20 feet or more high, and has been one solid sheet of mauve flowers since the first week in May. It is now throwing out such enormous shoots that it will shortly, like the white one of which I sent you a photograph in the winter, reach the roof. The leaves remain fresh and green all the winter.—A. LA T., *The Old Hall, Filkins, Oxon.*

The "Daffodil Year Book."—In the Prefatory Notice to the 1913 issue is the following: "The President and Council have spared no expense in the production of this issue, and it now remains to be seen whether the Daffodil fraternity will support the first attempt at a Year Book devoted to their favourite flower in such a manner as to make an annual repetition of it possible . . . they consider that any such publication devoted to the interests of one particular flower should come within reasonable distance of proving self-supporting." In Notice 32 on page xciii. of the Journal of the Royal Horticultural Society for August, 1914, appears the following statement: "The Year Book for 1913 is already sold out." Yet the Rev. W. Wilks in his letter states "the Year Book has never paid half its cost." Would any publisher expect any other if he fixed the price of his books at less than 50 per cent. of the cost of production? Clearly the blame does not rest with the "Daffodil fraternity," as the following table will show:

Year.	No. of pages.	No. of plates.	Price.
1913 ..	91 ..	17 ..	1s. 6d.
1914 ..	140 ..	37 ..	2s. 6d.
1915 ..	135 ..	33 ..	2s. 6d.

Agreeing that the price of the 1913 book should

have been 3s., "the President and Council of the Royal Horticultural Society willingly consent to repeat the experiment" of selling a book 50 per cent. below the cost of production in the hope that the book "should come within reasonable distance of proving self-supporting." Taking the cost per page as the same in each case, a simple rule of three sum would have proved the "experiment" a failure. I note that a Prefatory Notice is absent from the volume for 1915.—G. C., *Alverstoke.*

— I notice that in this year's Report of the Council of the Royal Horticultural Society, the

in his letter, in common fairness all other sections of horticulture involving also the increased cost of printing, including, obviously, much of the contents of the Journals of the society, already hovering on the edge of necessity, and sometimes even of utility, should suffer similar treatment. And how rich a field for saving is furnished by the Orchid section of the Journals! Examining recent issues of the Journal, one is struck by the enormously disproportionate amount of space—due doubtless, in a measure, to the extended period of blooming of that flower, but always calling for serious curtailment—accorded to the

Orchid, with numerous illustrations, costing more money than mere printing, compared with that devoted to the Daffodil; and yet for every single grower of the Orchid there are throughout the country probably 10,000 growers of the Daffodil. Will the Council accept and act upon this indication of a field where much saving might be effected, and especially in the matter of illustrations, which, under existing conditions of financial stress, might usefully be altogether omitted? Future issues of the Journal will be regarded with special interest in this connection. And on the question of finance it would be interesting to know how many copies in each case were printed, and how many now remain unsold, of the issues of the Year Book for 1913, 1914 and 1915 respectively. The Fellows have the right to this information. Will the Rev. W. Wilks kindly supply it? In my judgment the Council of the Royal Horticultural Society will be well advised to reconsider the hasty and ill-judged decision announced by its secretary, and to seek, with the assistance of its Narcissus committee, some *viâ media*, short at any rate of total extinction, by which the continuity of the publication may be preserved, for, as the Daffodil has no special society with its own literature, as has the National Rose Society, the Year Book affords to the Daffodil community the only means of intercommunication of ideas, and valuable advice based on experience, which are so necessary for the advancement of the flower; and I am sure that these com-



SOLANUM CRISPUM CLOTHING A HIGH WALL.

society's "Daffodil Year Books" are specially "commended to the notice of Fellows for their practical information on all matters connected with the Daffodil." And yet without, as I understand, any previous communication with the society's Narcissus committee—thereby affording an opportunity for considering whether the present increased cost of production might not be sufficiently met by a temporary reduction of extent and, consequently, cost of the Year Book—it is suddenly announced by the Rev. W. Wilks that for the current year the book is to be totally suppressed, and this solely for financial reasons. As Mr. C. Lemesle Adams has pertinently suggested

plaints will be echoed from Australia and New Zealand. As it is a long time before the next annual meeting of the society, it remains to urge these points through the valuable medium of the horticultural Press.—F.R.H.S.

Large versus Small Vegetables.—I cannot help being amused at seeing that the controversy I started in THE GARDEN a year or more ago, *re large versus small vegetables for the house*, is still being hotly carried on between "Anne Amateur" and others. I have taken no further part in it, though I still maintain that large vegetables for small houses and gardens are a curse, not a blessing, and the fact remains that one

is not always at liberty to choose small sorts, if forced by hard times to buy "collections" instead of shilling packets. In my own garden I gaze sorrowfully at a row of Leeks, more fit to be a hedge planted for protection from the wind than a vegetable, which I certainly never chose nor would have grown of my own free will. They are coarse, rank-tasting things, and spoil the soup.—A. LA T.

NEW AND RARE PLANTS

FIRST-CLASS CERTIFICATES.

***Meconopsis simplicifolia* Bailey's form.**—A most glorious plant, well worthy of the high

of a Lily. These unique plants came from the Edinburgh Botanic Garden. We should like to know much more about the last named, and probably Professor Bayley Balfour will kindly send us the information we seek for the benefit of our readers.

AWARDS OF MERIT.

Odontoglossum Gattton Prince.—A very handsome chestnut-blotched variety chequered with white and faintly bordered with the same colour. From Sir Jeremiah Colman, Bart., Gattton Park.

***Wilsonara insignis* (*Oncidioda Charlesworthii* × *Odontoglossum illustrissimum*).**—A most remarkable trigeneric hybrid and the first of its race, having in its veins the blood of *Cochlidia*, *Oncidium* and *Odontoglossum*. The general flower

Iris lævigata.—The true Japanese species so often confused with *I. Kämpferi*, from which, both in foliage and flower, it is quite distinct. Of graceful habit and free flowering, the dominant colour tone is deep violet blue, the clear white, spear-shaped mark upon the upper portion of the falls rendering it quite distinct. Plants of this rare species, we are informed, are to be included in the Royal Horticultural Society's Red Cross Sale. Exhibited by Mr. W. Christie-Miller, Sonning.

Rhododendron Donald Waterer.—The colour is rosy white, freckled with yellow. A very handsome variety.

Rhododendron Duchess of Teck.—This is lovely rose pink in colour, with yellow markings at the base of the petals.



THREE RARE AND INTERESTING PLANTS.

Monocharis pardanthina, a Liliaceous plant from China. First-class Certificate.

Iris lævigata offered for the Red Cross Sale. Award of Merit.

Meconopsis simplicifolia Bailey's form. First-class Certificate.

award accorded to it. From a rosette of greenish, lance-shaped leaves the scape rises to 18 inches or so high, bearing at its summit a solitary saucer-formed flower, 3 inches or more across, of a blue tone so exquisite that all else in the genus of this shade pales before it. The fine tuft of golden anthers more strongly emphasises the beauty of the flower. Other flower scapes and buds were showing from the base of the plant.

Monocharis pardanthina.—A quite unique plant, the pendent, saucer-formed flowers approximating in form to those of a shapely Lenten Rose, though of greater substance. The flowers externally are coloured rosy purple; internally they are of rosy pink and freckled with crimson. The 8-inch-high stem was very suggestive of the growth

effect is that of a starry-shaped *Odontioda*, the flowers opening a reddish crimson and later toning down to ruby red. The *Oncidium* influence is not apparent in the hybrid; the pseudo-bulbs and growth approximate to *Odontoglossum*. From Messrs. Charlesworth and Co., Hayward's Heath.

Iris Rembrandt.—This is one of the new Dutch bulbous Irises, and probably the finest of its set, being bold and handsome in all its parts and of good colour withal. The broadly ovate falls are light striated blue, upon which rests a great blotch of richest orange yellow. The standards are of clear violet blue colour. A most effective plant. Shown by Messrs. Dobbie and Co., Edinburgh.

Rhododendron Diphole Pink.—This is of full rose pink tone, a very handsome variety with splendid truss. All are characterised by free flowering. Shown by Messrs. Waterer, Sons and Crisp, Bagshot.

The foregoing novelties were exhibited before the Royal Horticultural Society on June 6, when the awards were made.

FORTHCOMING EVENTS

June 20.—Royal Horticultural Society's Meeting at Vincent Square, Westminster, S.W.

June 21.—Croydon Flower Show in the Park Hill Recreation Ground.

June 22.—Royal Jersey Horticultural Society's Show.

A YOUNG HEATH GARDEN

BY GERTRUDE JEKYLL.

IT is not yet three years since the ground was cleared, and already the Heath garden has a look of young maturity. Its site was a woody place with a thin sprinkling of Oaks; the soil is sandy, and there is a natural undergrowth of Heath, Bracken and Whortleberry. The space cleared of trees measures about 300 feet one way by 200 feet the other. All around is the natural woodland of Birch, Oak, Holly, Juniper and Spanish Chestnut. The part where the Heaths were to be planted was cleared of all other roots and dug over—not trenched; trenching would have brought pure sand to the top, whereas plain digging kept the thin skin of peaty soil within root reach, and provided depth enough for the seeds of the Heaths. In some places, tongues or promontories of the natural growth were left; they are of long shape, running down obliquely with the line of the path. Their value is apparent in that they so well connect the wild ground with the planted that no line of junction can be seen, the planted Heaths having the appearance of being there naturally.

A careful selection of cultivated kinds was made, of not too many varieties. For winter bloom there is *Erica carnea* and *E. hybrida*, and near them the tall *lusitanica* and *arborea* and the fine hybrid *Veitchii* with the rather tall growing *E. stricta*. The *carneas* are planted so that they will shortly form a continuous mass; the others are in informal groups, one group thinning out at the edges to join in to the

next. The general form of the groups is that of longish drifts following each other in a quite uneven succession, varied by thicker or thinner patches, and here and there entirely broken by the projecting promontories of natural Heath and Whortleberry. Near the front are rather extensive patches of the beautiful white variety of *Menziesia*, the Irish Heath, followed by the rather rare native *E. ciliaris* and its Portuguese congener, *E. maweana*.

E. ciliaris is one of the best of Heaths, with its large pink bells and downy foliage with ciliated edges, and has the further advantage of a long succession of summer blooms. It is so good that it is remarkable that it should be so generally neglected in gardens. Also in front are the varieties of *E. cinerea*, 'pale pink and white—the white very good. These are followed by the Bell Heather or Cross-leaved Heath, *E. Tetralix*, in Nature growing preferably in wettish ground, though fairly contented in dry. These are backed by a good planting of the Cornish Heath (*E. vagans*) in three varieties that will form thick, bushy masses 2 feet high. At the further end of the Heath garden are several of the many varieties of *Calluna*, of which the tall whites, *Hammondi* and *Searlei*, are of special beauty.

When the Heaths were placed, the ground was by no means covered with the nursery plants, but, except for some spaces left for other suitable growths, it was more or less filled with young plants of the three wild Heaths common in the district. Places in the neighbouring widespread heathy wastes, where four years before there had been a great Heath fire, were newly covered with a prosperous growth of young plants, and by the permission of a friendly Lord of the Manor we could collect what we might want. In this

way delightful young tufts of *E. cinerea*, *E. Tetralix* and *Calluna* could be had, and were filled in between the nursery plants. There are some wild things common to heath land that we thought it desirable to add. These are the Wood Sage (*Teucrium Scordonia*), with small Sage-like leaves and spikes of Mignonette-coloured bloom; Harebells, and the very pretty blue Sheep's-bit Scabious (*Jasione montana*). These give just such points of interest as constantly arrest attention and compel admiration when passing over the natural wastes. For the rest, any remaining spaces of ground are toned down into harmony with the whole by a short, furry growth of moss. The paths are covering themselves with seedling Heaths and Thyme and the natural peat-loving grass *Aira flexuosa*, whose tufts of hair-like foliage soon tread down into a short, close turf.

HIPPEASTRUM SNOWDON

A VERY fine vase of this unique pure white Amaryllid was sent by Mrs. Burns, North Mymms Park, Hatfield, to the last meeting of the Royal



THE RARE PRIMULA NIPPONICA FROM JAPAN.
Now flowering for the first time in this country.

Horticultural Society, when it was deservedly awarded a silver Banksian medal. The variety received a first-class certificate in April, 1904, and is without equal to-day. We refer to it again with pleasure, as the raiser has generously offered eight bulbs of it as a contribution to the forthcoming Royal Horticultural Society's Red Cross Sale of plants. So unique a plant will doubtless be eagerly sought after.

For a long time a good white *Hippeastrum* had been the dream of hybridisers, and it was only after persistent cross-breeding that Mr. C. R. Fielder, then gardener to Mrs. Burns, North Mymms Park, Hatfield, managed to secure this end. Snowdon was the first to make its appearance, and many will recall the great interest it created when it was brought before the Royal Horticultural Society in the spring of 1904. Apart from its colour, the flowers have a refined appearance and good form that are often lacking in blooms of large size.

PRIMULA NIPPONICA

THIS is a Japanese *Primula* which, so far as I know, has never before been illustrated, and as I have at the present time several plants in flower, I thought it might interest some of your readers to give a simple description of this *Primula*, which Miss Amy Cameron has kindly photographed. *P. nipponica* is farinose and glabrous; leaves spatulate with a broad petiole, anterior margin serrate-dentate, 1 inch to 1½ inches long, a quarter of an inch to half an inch broad. The scape rises well above the leaves, and bears an umbel of from one to five pure white flowers. The bracts are awl-shaped, calyx campanulate, lobes bifid lanceolate, acute; corolla lobes heart-shaped, deeply emarginate or bifid.

Morelands, Duns, N.B.

JOHN MACWATT.



THE BEAUTIFUL WHITE HIPPEASTRUM FROM NORTH MYMMS PARK, OFFERED FOR THE RED CROSS SALE.

NOTES FROM THE RIVIERA

BY EDWARD H. WOODALL.

IN an old-fashioned Italian garden, once the pride of its owner, there is a raised semi-circular water basin and tiny fountain against a retaining terrace wall that enchanted me so thoroughly the other day that I will try to put it on paper. The semi-circular basin set in the wall is filled with the blue *Nymphaea scutum*, the hardiest of blue Water Lilies, which is now in full flower. At its feet, on either side, is a huge mass or bush of the brilliant *Strelitzia Reginae* bristling with its spikes of bird-like flowers in orange and blue. The wall behind, of considerable height, is hung with *Thunbergia laurifolia*, which is so happy in a moist and sheltered place. Owing to the moist and favourable season, its luxuriant panicles of blue grey or lavender blooms are hanging in profusion from the wall, clothed with its handsome foliage. I never saw

spring-flowering plants and shrubs. *Plumbago capensis* is also another old-fashioned shrub just coming into good bloom that is very useful for toning down the aggressive and hot colouring of the Zonal *Pelargoniums* which so revel in the clear air and hot sunshine of early June.

I am strangely reminded of the well-known *Asphodelus ramosus*, so common on some parts of this coast, by the long-stemmed sheaves of blossom of a small-flowered and branching white *Ixia* which is grown near Ventimiglia for the market. Never having seen it in England, or in any garden in this part, it has greatly surprised me by its decorative beauty. Its long-stemmed sprays of blossom are over a yard long, and the individual blooms are so small and so dainty that, as I say, it recalls the *Asphodels* rather than the *Ixias*. With the early blooming *Gladioli* now

To see *Lilium candidum*, the Madonna Lily, growing apparently wild on rocky knolls in the partial shade of the Olive trees is a sight that deserves recording. Beautiful as these Lilies are in the garden, they are still more exquisite when shooting up tall and strong among lentisk or other scrub growth. The size of the petals and the purity of the white blooms must be seen to be fully appreciated. It is to be noticed they are always growing in partial shade on dry limestone, rocky soils, and evidently prefer the severest drought to anything like a moist soil or atmosphere. No wonder they so often suffer from the *Botrytis* fungus in Northern lands where dews are heavy and sunshine scarce, more especially in wet seasons!

That rather weird and uncanny shrub, *Feijoa Sellowiana*, is now showing quantities of its curiously bicolor flowers bristling with red stamens tipped with black, and with a pistil that is as stiff and as hard as any pig's bristle. The first day the flower opens, the petals are a rich deep red, very much like a big Myrtle blossom that has gone red in the face; but by the third



LILIUM CANDIDUM IN A SOUTHERN GARDEN.

the blooms finer than they now are, as there was no cold to check them in winter, and both the size and the colouring of the flowers struck me as being finer and brighter than in autumn, when it is usually at its best, as it is often cut down in spring and not allowed to flower so early. There could hardly be a more charming combination of beauty, form, and of colouring for a raised tank in airy and warm Northern greenhouses, and would last for a long time in beauty. The eye at this time of year is so fatigued by the enormous masses of pink Ivy-leaved *Pelargonium* which hang in such profusion from every balustrade or garden wall that the soft lavender blues and restful greens of the *Thunbergia* are particularly welcome. It is hardly an exaggeration to say the effect is as if miles of *hot pink blankets* were hung out to air in the sunshine! The bushes of white *Lantana* are also very welcome and beautiful when seen growing near; it is not a common shrub in modern smart gardens, where everything is sacrificed for the sake of

so abundant, the big "gerbes," offered for almost nothing in the market these hot mornings, give a beautiful effect in the house now that Roses and Carnations are at an end. Other *Ixias* have been over for so long, and all others are comparatively so small in growth and stature, that I shall hope some day to come across this plant in a growing state; it is so very different from the florists' type.

The hillsides are now a mass of the Spanish Broom (*Spartium junceum*), and starring the ground underneath on rocky and dry hillsides *Aphyllanthes monspeliensis* makes an ideal ground covering with its dainty little blue stars. Both plants are almost impossible to transplant, except in a very young stage; but where a good mass of *Aphyllanthes* can be planted on a dry bank, backed by a few bushes of *Spartium junceum*, an effect will be obtained that is worth an effort, especially to those who suffer from too much *Arabis* or *Saxifrage* of sorts and sigh for something unlike their neighbours.

day the petals have curled in on themselves till you only see the pale flesh colour of the backs of the petals, so the old flowers are pale pink and the newly opened ones are a rich red. As a fruit the flavour is delicious—like a highly flavoured Custard Apple; but though it sets abundantly each year, the fruit drops off so persistently in August that it is rarely seen in perfect maturity. It is a native of Brazil, and belongs to the Myrtle family. In England it is seldom seen except as a greenhouse subject. However, it has been grown in the Southern English counties against a wall, and in view of the fact that other Brazilian plants are successful in English gardens, it would be interesting to know how this shrub fares. I fancy it needs much moisture and liquid manure in August when the weather is warm, but if the temperature is rather below the average at that season, the check causes *all* the fruit to drop off, so that it can only be considered as a curiosity on this coast when, by happy chance, an odd fruit or two does come to perfection.

TULIPS IN THE MOUNTON HOUSE GARDEN

By H. AVRAY TIPPING, M.A., F.S.A.

THE REV. J. JACOB ushered in his "Tulip Notes" in the issue of June 3 with the heading "This Abominable Season," and spoke despairingly of the prevalence of "fungus-eaten leaves and spotted flowers." He has all my sympathy, but I cannot myself join the chorus of wailing. I will not say that we have been entirely immune from diseased foliage and spotted blooms, but these have been very much the exception to a golden rule, and the gardens here had a better display of Tulips than in the previous years of their short existence.

of the upper gardens at Mounton House did not suit Tulips, and yet was all that could at first be given to them. So in 1914 there was a poor show wherever new ones had not been put in. Meanwhile, however, the work of lightening and enriching the soil had been undertaken, and the west garden laid out after the last wing of the house was completed at the end of 1913. That and the pergola garden, both of which are now illustrated, have their parterre of beds set with Tulips and an undergrowth of Violas, principally Maggie Mott and Royal Scot. Whether they were bulbs put in in 1914 and left, or whether they were new ones

and other very dark varieties I leave alone, except for a few in a shady shrubbery, for the midday sun scorches them the very day they expand, so that they look as if a lighted match had been run round their edges.

If Darwins hold the first place among May Tulips, they have to share the ground with worthy competitors. Their cup-like form and even edge are excellent, but so also are the longer petals and recurving tips of other families. Gesneriana spathulata is a splendid Tulip and carries its big crimson scarlet blooms sturdily. So does its cousin lutea, which should not be omitted from the yellow section, well filled as that is. For a full yellow Mrs. Moon cannot be beaten, while the paler Solfatare and still paler Vitellina are admirable in form and tone. Some of the yellows are the latest of Tulips, Miss Willmott and Parisian Yellow ending the season with me. True, Isabella—known also

as Shandon Bells—is almost outstaying them, but that is because she fills a shady bed, and the burning sun that has held sway so often while the late Tulips have been blooming this year greatly shortens their season. Isabella, like the rather earlier Golden Crown, is one of those Tulips which change colour most completely during the days of inflorescence; the latter has yellow buds, along the edge of which a slight crimson feathering appears as the flower forms. That increases and runs down the petals till the yellow is almost banished when the petals fall. Isabella has a pale, almost cream yellow bud, on which splashes of cerise soon appear and gradually dominate the bloom. The earlier phase made the bed interesting as early as May 13, and now (June 3), three weeks later, the blooms are still fresh and shapely.

I must certainly develop the use of north borders for late Tulips and thus prolong the period of enjoyment which began with Kaufmanniana expanding in March, followed by Clusiana and præstans. Such types I set in the rock garden, and many varieties I use to brighten border, shrubbery and even woodland. The various species and their endless garden hybrids give such variety of colour and form as well as length of season that a general use produces no

sensation of weariness and surfeit. It is, however, for parterres and formal beds that the Tulip is most apt. Yet, even so placed, avoid planting with a 2-foot rule. The effect of little groups and slight gaps, if not over-done, is more satisfactory, for flowers should never look like chessmen set out in preliminary array. That is why—apart from the saving of labour and new bulbs—I cling to the system of leaving the bulbs in the ground. But in that case some under work is needed, and, as already suggested, nothing surpasses Violas for this use. When they do well they continue blooming the whole summer and live into another year. So that when the Tulips are over and can be cut down, Snapdragons—pretty much in the same colour scheme as the Tulips—can be introduced among the Violas. A well-chosen contrast rather than a sameness of hue between Tulip and Viola appeals to me; such combination, for instance, as Clara Butt with the pale pinky



IN THE WEST GARDEN AT MOUNTON HOUSE.

The builders occupied—and how sordid an occupancy is theirs!—the ground round the house until the autumn of 1912, and it was only then that work on the formal gardens could begin. Mountains of rubbish had to be carted away, possible soil brought, levels taken, flags laid, beds and borders formed all in a hurry. Yet, so far as Tulips were concerned, the show of them in the pergola garden the following spring was very creditable. The well-worked soil at Mathern Palace, where I had grown Tulips for years and with results that have been illustrated in THE GARDEN, had accustomed me to leave bulbs where they were, bed over them for the summer, and expect good results the next spring. The fact that some bulbs fail while others multiply gives a naturalness to the effect which I much prefer to the even spacing that is apt to occur with yearly planting.

But the rather heavy and none too good soil of the arable field which was the origin

planted last autumn, all the Tulips have this year done equally well. The object is to have a show in May, and therefore only late Tulips are used in these sections of the grounds. The site being high and open, stiff stems are desirable, and chief reliance is placed on the Darwin group. Some thousands being needed and cost an object, the best of the older varieties are selected, but among them Clara Butt, now supplied at 40s. per thousand, is now happily included. There is no better pink, but Laurentia and Baronne de la Tonnaye are also used for this colouring, while the light silvery rose of Margaret combines well with them. For full reds Orion and Princess Juliana, Tak van Poortvliet and Ripperda are a good selection. The latter attained the height of 2 feet 9 inches here this May, and yet stood erect in a rather windy place. Rev. H. Ewbank is perhaps the best lilac, Mendelssohn being rather hot in tone and Lantern almost too pale. Maroons, purples

lavender Mrs. Pat, the lavender Rev. H. Ewbank with the pale yellow Ardwell Gem, and the pale yellow Solfatare with the lavender Maggie Mott. White Queen, on the other hand, is the Darwin Tulip I should select to rise out of a rich bed of Royal Scot Viola, while Swan would be a good white background for rich red Tulips such as Ripperda or Orion.

The popularity of the Tulip will surely increase and endure, so that its successful propagation and market production in those districts of England and Ireland that suit it as well as does Holland is greatly to be welcomed and should become—indeed, almost is already—a crop of national importance.

CLIFTON DOWN: A RETROSPECT

BY H. STUART THOMPSON, F.L.S.

ALTHOUGH as a suburb Clifton cannot rank with Edgbaston and perhaps one or two other suburbs in the matter of fine roads and large gardens, it is certainly unique in its beautiful Downs and magnificent Avon gorge. Whatever Clifton lacks as an older suburb in regard to artificial

splendour is more than compensated for by its superb natural surroundings.

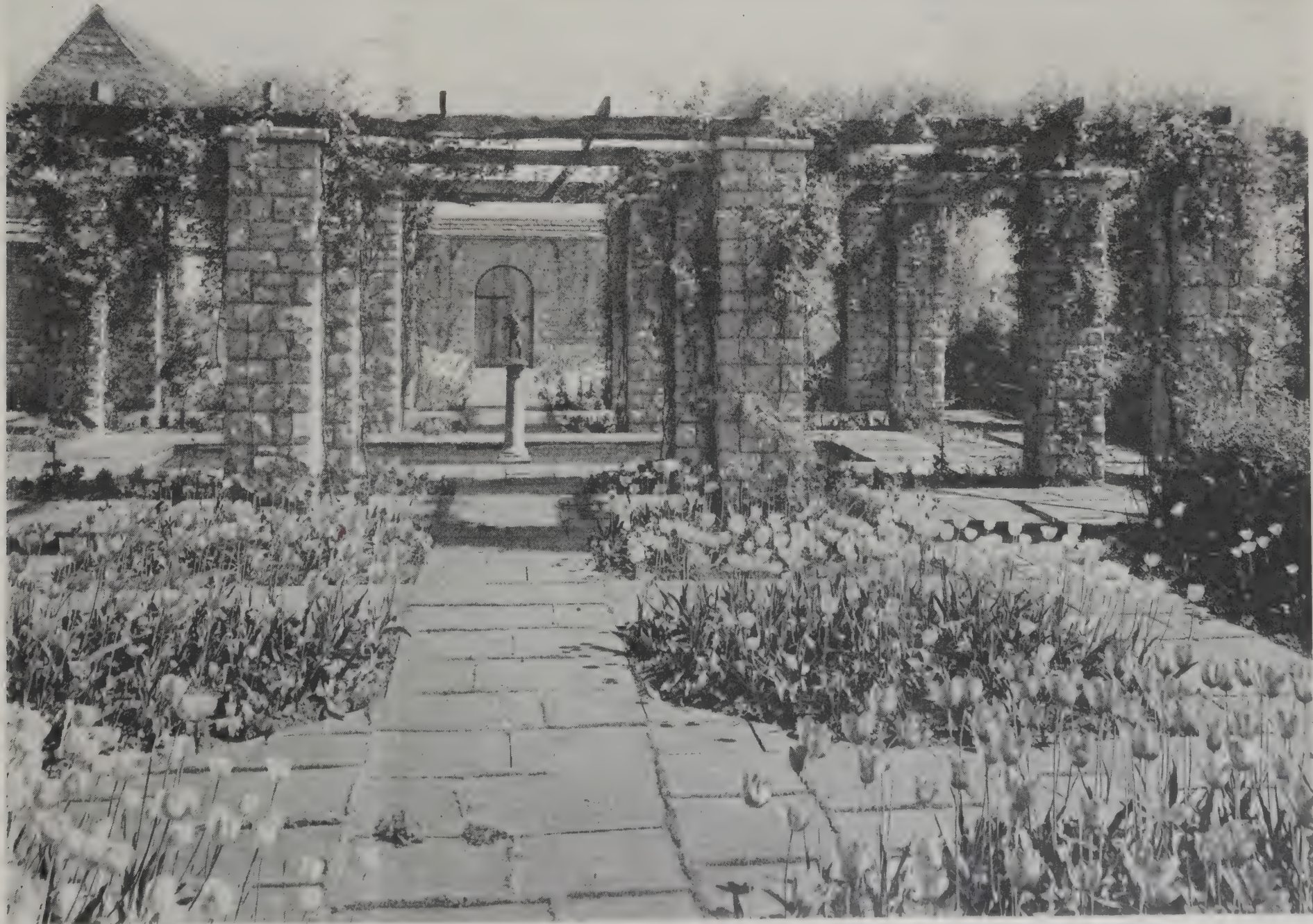
Apart from the grandeur of the stupendous limestone cliffs, the windswept expanse of Clifton and Durdham Downs bedecked with Hawthorns, and the beautiful wooded slopes on both sides of the Avon, spanned by the famous suspension bridge of Brunel; the flora of the immediate neighbourhood of Bristol is one of extreme interest and variety, as every botanist knows. So rich in rarities is Bristol that probably no district in England has been visited so frequently or by so many botanists during the past three and a half centuries. Not a few uncommon British plants were first recorded here, as can be seen in "First Records of British Flowering Plants," by W. A. Clarke.

In all probability the natural beauty of Bristol's surroundings was as much appreciated in the Middle Ages as it is to-day, and, as Mr. J. W. White says in his admirable "Flora of Bristol" (1912), "We find indeed that the primitive British herbalists, with successive writers of eminence in later years, and scientific men from other lands on their visits to this country—in fact, nearly every botanist of note from the foundation of the British Flora down to the present time—all made the pilgrimage to Bristol as to a botanical Mecca, attracted by the fame of her scenic

loveliness and the rarity of her limestone plants."

The earliest original botanical work produced in this country was Turner's Herbal, published in 1551. William Turner, Doctor of Physick, was for some time resident in Bristol before he became Dean of Wells. The majority of the 238 native flowering plants first described by Turner are common species, but he tells us that twelve of the rarer ones were collected near Bristol and Bath. The local plants included *Linum angustifolium*, *Sinapis alba*, *Prunus insititia*, *Smyrnia*, *Trinia*, *Colchicum* and *Blechnum boreale*. Of *Trinia* he said: "I found a root of it at Saynt Vincentis rock a little from Bristow." *Trinia* still grows on these famous rocks and on the broken limestone ground nearer the "Sea Walls." The district of the Bristol coalfields, based upon William Sanders' geological map, includes all the British stations for this rare plant except the one at Berry Head in Devon. Apart from Turner, it is associated with Bristol also by Lobelius (1570), Gerard, Johnson, Parkinson (1640) and Sir Joseph Banks.

In 1581 Lobelius was accompanied to Bristol by the celebrated Clusius, who was then making a long stay in England. This we learn from Professor Ed. Morren in "Charles de l'Escluse, sa Vie et ses Œuvres, 1526—1609" (Liège, 1875).



IN THE PERGOLA GARDEN AT MOUNTON HOUSE.

The first account of a botanical excursion ever printed in England was Thomas Johnson's "Iter plantarum investigatione a decem sociis in agrum Cantianum" (1629). Johnson was a Yorkshireman, who became a London apothecary, and later, M.D. of Oxford. He edited and largely rewrote a new edition of Gerard's Herbal, and added to it 800 new plants and 700 figures. His botanical visit to Bristol is described in the "Mercurius Botanicus," which, together with a tract on Bath and its hot springs, was published in 1634. In that work he also records a list of 117 plants observed in July in the garden of George Gibbs at Bath. In Johnson's "Catalogus Plantarum" 816 names of plants are recorded, many of the early flowering ones having probably been noticed during his two months' stay at Bath. Most of the limestone rarities of Bristol are also recorded. Johnson noted in his various publications, including his edition of Gerard's Herbal, about 170 flowering plants not hitherto published as British. Among these are some first observed at Bristol and Bath, such as *Cardamine impatiens*, *Arabis hirsuta*, *Geranium sanguineum*, *Hippocrepis comosa*, *Vicia sylvatica*, *Veronica hybrida* and *Ornithogalum pyrenaicum*. Fortunately, these still exist in the same localities.

Mr. White, whose knowledge of the Bristol flora is greater than that of any man who ever lived, agrees with Ray, who lived a generation later than Johnson, that this otherwise careful observer was probably mistaken in recording *Arabis stricta* (the Bristol Rock Cress) from Bath, and that *A. hirsuta* may have been taken for it.

Arabis stricta of Hudson (*A. scabra* of Allioni) grows on the limestone rocks and broken ground and turf on both sides of the River Avon, and also about a limestone quarry in Gloucestershire half way between Clifton and the Severn Sea. Before 1894, when specimens were forthcoming from Radnorshire, this plant was not known elsewhere in these islands. I have seen it very rarely in Switzerland and South-Eastern

France, and it is recorded from Spain. On the Salève, near Geneva, it can be seen in places very similar to those at Clifton on the carboniferous limestone. Like many plants peculiar to a certain rock in Nature, *A. stricta* will grow on other soils in cultivation. It is, however, a difficult plant to grow in gardens. The radical rosettes of hispid, shining leaves are evergreen, the flowering stems are produced annually, and the ordinary limit of age is probably four or five years. However, Mrs. Gregory, when living at Weston-super-Mare, succeeded in keeping a specimen alive twelve years.

John Ray (1627—1705) visited the Bristol district several times, and in his "Synopsis" are several of the rarer Bristol plants which had escaped the notice of the earlier botanists. He discovered *Erodium moschatum* at Clifton, *Vicia hybrida* on Glastonbury Tor, and *Euphorbia platyphyllos* near Keynsham; while *Arabis stricta*, *Hutchinsia petraea*, *Helianthemum polifolium* (on Brean Down), *Allium Ampeloprasum* and the Cheddar Pink were reported to him by others. Ray was the first to notice *Scilla autumnalis* on St. Vincent's Rocks, where it was seen afterwards by Banks, Lightfoot, Hudson, Withering and Smith, but where now it is extremely scarce.

Ray's keen observation can be well illustrated by his accurate description of the rooting habit of the barren stems of *Lithospermum purpureo-cæruleum*, which he had seen in Somerset, "not far from Taunton." This was probably on one of the oolitic hills just south of the area on Mendip which forms the centre of distribution in England of this rare and beautiful plant. This remarkable feature in a Boraginaceous plant remained unnoticed by authors until J. W. White published his interesting paper thereon two centuries later, in the *Journal of Botany* (1884), page 74.

Of Dillenius, Hudson, Withering, Banks, Curtis, Sole and more recent botanists and their connection with Bristol botany I have not space in this short article to make further reference.

Those who desire to do so will get a fascinating and detailed account in the "History of Bristol Botany," which forms so interesting a chapter in Mr. White's "Bristol Flora."

Since reviewing that work the present writer has had ample opportunity of using it and of testifying to its great worth, and he would like further to bear witness not only to its excellence and thoroughness, but to the numerous illuminating notes it contains. Many of these notes have a very human interest, and sometimes reflect in the most charming manner the nature of the man who wrote them. It stands to reason that I am indebted to the historian of "Bristol Botany" for much of the matter now mentioned.

RHODODENDRON LODERI

WE owe this beautiful hybrid to a doubt felt by Sir Edmund Loder as to the parentage of *Rhododendron kewense*, raised at Kew many years ago from *R. Griffithianum* and *R. Hookeri*, the latter being a small-leaved, close-headed species with bright crimson flowers. The cross was made by the late William Binder at the suggestion of the late Mr. J. H. Mangles, who was among the *Rhododendron* cult what the Rev. G. H. Engleheart is among *Daffodil* fanciers—a breeder of champions. So Sir Edmund mated *R. Fortunei* with *R. Griffithianum*, and from them he obtained a hybrid of superb quality like, yet unlike, *R. kewense*. I saw a number of plants of it in flower at Leonardslee in June, 1911, and gave it a name, at the same time expressing the opinion that it was the loveliest of all the Griffithianum crosses (one wants to write *Aucklandii* every time), and after five years I am certain I was right.

Sir Edmund gave a plant of his hybrid to Kew, which was in flower a few weeks ago, when the photograph reproduced on page 301 was taken. This is not one of the best of the Loderi batch, among which there was variety in size and in colour, some having ivory white flowers 6 inches across, others being rose coloured, crimson in the bud stage. They all showed six or seven segments in the corolla, and they were all as fragrant as both the parents.

So far as I know, Sir Edmund's plants have not yet got into the nurserymen's hands, but I was delighted to see in Mr. Gill's nursery at Falmouth last year a batch of seedlings of the same cross, raised by Mr. Gill in ignorance of what had been done at Leonardslee, and some of these have flowered true *R. Loderi*.

R. Fortunei, a Chinese species introduced in 1859, is quite hardy in most parts of the British Isles. In my opinion the plant called *R. decorum* is only a form of this. *R. Griffithianum* is too tender to grow happily outdoors except in the most favoured parts, such as South Cornwall. It is, however, a parent of many first-rate garden hybrids.



RHODODENDRON LODERI AT LEONARDSLEE, HORSHAM.

and in this respect is by far the most important of all the Himalayan species, except *R. arboreum*, which is not exclusively Himalayan. W. W.

[For the illustration of *Rhododendron Loderi* growing at Leonardslee we are indebted to Sir Edmund G. Loder, who also sends the following note concerning the size and remarkable freedom with which the flowers of this beautiful hybrid are produced: "I have lately measured a bloom $6\frac{1}{2}$ inches in diameter, and I have also counted thirteen blooms in a truss. Two years ago I counted fourteen in a truss, none of the blooms less than $5\frac{1}{2}$ inches to $6\frac{1}{2}$ inches in diameter. Leaves of 12 inches in length have been formed, and leaves of 10 inches can commonly be found on a healthy plant."—Ed.]

CHOICE DAFFODILS AT BRODIE CASTLE, NAIRN

FOR the past three years I have had the privilege of visiting the gardens at Brodie Castle, where the Brodie of Brodie has an unrivalled collection of Daffodils. No doubt many readers of *THE GARDEN* are aware that he is a skilful Daffodil hybridist. Many of his flowers have been honoured by awards of merit from the Royal Horticultural and the Midland Daffodil Societies. Some of his latest successes are Cairngorm, Morven and Mozart. He is now serving his King and country, like thousands of others who follow Adam's profession, and who are out to destroy "Kultur" instead of staying at home to keep alive the peaceful cult of the gardener.

In spite of this late and unpropitious season and the vagaries of our very uncertain Scottish climate, the Daffodils were a blaze of beauty at the date of my visit (May 11). Three days previous they had borne the brunt of thirty-six hours' continuous rain, mixed at intervals with snow, hail and sleet, in addition to a blustering wind from the north-east.

White trumpets were represented by White Emperor, Mrs. E. H. Krelage, White Maximus, Florence Pearson, Mrs. R. Sydenham, Ailsa, Potent and White Knight, in addition to many excellent seedlings not yet in commerce. As regards refinement and purity of colour, White Emperor is far superior to Mrs. E. H. Krelage. The latter is very free flowering. When first seen in 1914 the bulb threw two flowers; in 1915 there were five; and this year there are seven of medium size and with stiff, erect stems.

The soil evidently suits King Alfred, as it was in the pink of condition. Of even stronger growth was Ben Avon, a Brodie Castle seedling raised from King Alfred and Glory of Noordwijk. The bloom is of perfect form, combined with great substance, and golden yellow in colour. Some of King Alfred's seedlings had foliage as broad as well-grown Leeks. The finest bicolor trumpet was Conqueror. It has a stiff habit and is well proportioned. The same may be said of Morven, for which the Brodie received an award of merit in 1914. It was the result of a cross between Victoria and Mme. de Graaff. The perianth is creamy white, and the trumpet pale primrose.

The flowers in the incomparabilis section were especially fine. *Croesus* was of large size and great substance. *Helios* was nearly over. *Morning Glory* (Brodie, 1913) is a fine pure yellow of

King Alfred colouring. Other good blooms were Queen of Hearts, Macebearer, Pedestal, Whitewell, and Bernardino, which, without doubt, is one of the finest Daffodils ever raised. There was a large break of this sterling variety. Blooms with red eyes were gorgeous in their colouring, such as Jasper, Cossack, Firetail, Challenger, Dorothy and Miss Willmott. Mozart, for which the Brodie received an award of merit last year, is a fine shallow-cupped flower. The perianth is of a pleasing shade of primrose. The cup is widely expanded, and has a deep yellow centre with a red-edged margin. It is a remarkably good grower and very free flowering, eleven blooms being noted on one plant.

The *élite* of the Leedsii were to be seen nodding to one another in the gentle breeze. Emerald Eye, Empire, Hypatia, The Fawn, Ivoryine, Loch Fyne (Brodie), Mrs. W. O. Wolseley and Moonbeam were all blooming well.

The Poeticus section included Hildegard, Kestrel, Kingsley, Nightingale and Socrates, the latter being especially well coloured.

Seedlings were in all stages of development, from the Rush-like foliage of the first year to plants seven years old. It would require the Rev. Joseph Jacob's facile pen to describe the word-pictures of the flowers and his keen acumen to "spot" the winners; but I made a note of the following blooms, which seemed to me to approach perfection. The gem of all was the result of a cross between Bernardino and Will Scarlett. The perianth was 4 inches in breadth, the crown $1\frac{1}{4}$ inches broad and three-quarters of an inch deep. The segments were broad and overlapping, of a light lemon colour. The crown was of Bernardino shape, extra well frilled, and stained right down to the base with orange scarlet, almost as deep in colour as the crown of Will Scarlett. It was a five year old seedling. Another grand flower was a cross between King Alfred and Pilgrim. It was a giant among its fellows in size, form and refinement. The perianth was light yellow, and the crown of King Alfred colour. There

were some outstanding flowers, as the result of crosses between Giraffe and Bernardino, Minnie Hume and Empire, and Minnie Hume and Conqueror.

On the day of my visit the sun was shining from a cloudless sky, and Nature was in its kindest mood. It was therefore very sad to see, on such a day, destruction hovering over beauty, in the shape of Merodon equestris. The flies were seen trying to settle on the flowers. On attempting to catch them, they flew off with lightning rapidity, only to return in a short time to find an opportunity to perform their dire work. Although this evil pest was present, I did not see the least sign of disease.

Should any readers chance to be in the North of Scotland in Daffodil-time, they should make a point of visiting the lovely garden at Brodie Castle. They will be heartily welcomed, and will be rewarded by seeing the choicest collection of Daffodils in Scotland. J. G. W.

ROSE PUISON. (WICHURAIANA.)

THIS is a very beautiful addition to a most popular tribe, and one that cannot fail to find many admirers. The blooms, when fully out, are quite 4 inches across, which is a large size for a Wichuraiana, and as they are produced in clusters of seven to ten flowers, the effect of a plant when fully out is very charming. The colour is a chamois yellow, turning to flesh white. The buds are of a coppery rose. They are not so pretty as those of *Leontine Gervaise*, a Rose it somewhat resembles, being from the same cross, namely, Wichuraiana type and Tea Rose *Souvenir de C. Guillot*, but the expanded flowers are superior. The growth is very free, and altogether it is a fine addition to a group which Messrs. Barbier and Co., its raisers, have done so much to create. Their *Desiré Berger* is another most lovely thing. In this case the half-open flowers are an intense coppery red inside. It is one of the best of the whole tribe, and I feel sure will be in much request. DANECROFT.



A NEARER VIEW OF THE TRUSSES OF RHODODENDRON LODERI.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

The Loganberry and its Allies.—These are growing freely, and the young shoots must be made secure to the trellis-work or other supports. Remove all the shoots not required for next year's crop.

Currants and Gooseberries.—All suckers forming at the base of Gooseberries and White and Red Currants must be removed, but the strongest of the basal growths from Black Currants should be encouraged.

Vines.—Where Vines are growing in the open, the surplus bunches must be cut off and the growths regulated. Expose the bunches to full sunshine, and all superfluous growth should be removed every ten days.

The Kitchen Garden.

Spinach.—During hot, dry weather it is somewhat difficult to keep up a supply of Spinach; but if a cool, shady part of the garden is chosen and the crop is well supplied with water, a fairly good supply can be maintained.

General Reminders.—Peas should be given water liberally, and later crops must have sticks placed to them soon after the plants are through the soil. Lettuce seeds may be sown; old frames are very useful for growing this crop during the hottest part of the year. Make a small sowing of Turnips at frequent intervals and thin the seedlings early. This remark applies also to Short Horn Carrots. Tomatoes planted out will require to be kept moist at the roots, and the main stem must be made secure to a strong stake and all side growths removed. Radishes, Mustard and Cress, and Endive can also be sown. Continue to plant out Brussels Sprouts. Keep the ground hoed and stirred about, and after heavy rains it is always advisable to get the hoe to work before the surface becomes hard.

The Flower Garden.

Rhododendrons.—Many of these beautiful plants have passed the flowering stage, and it will be necessary to remove the trusses of decayed bloom to prevent the formation of seed-pods. This will allow the new growth to develop, and also give the plants a better appearance. Azalea mollis in variety may be treated likewise.

Carnations.—The staking of these will now require attention, especially the Perpetual-flowering kinds, which will need Bamboo canes. For the border varieties supports made of wire will suffice. Both will pay for a little disbudding.

The Flower-Beds.—If the weather is dry, the plants must not be neglected as regards watering. Give the beds a thorough soaking; then for several days afterwards a sprinkling overhead each evening will be sufficient to encourage root action.

Fruit Under Glass.

Pot Trees from which the fruit has been gathered may be placed in a sheltered but sunny position outside, plunging the pots in ashes, to complete the ripening of the wood. Syringe the trees daily and keep the roots well supplied with water.

Plants Under Glass.

Plumbago rosea.—This is a delightful plant for winter work, and cuttings rooted last April must be potted on as the necessity arises. They will thrive in a warm house where the atmosphere is not overmoist and the roof glass not heavily shaded. Old plants that were cut back may have most of the soil shaken from their roots and then be repotted in 8-inch pots.

Gesneras.—Tubers of the winter-flowering varieties may now be started into growth. Do not pot too firmly, and use the soil in a more or less lumpy condition. A night temperature of 60° will suffice, and shade them from strong sunlight.

Primula sinensis.—The seedlings having been pricked off into boxes and small pots, the most forward plants should now be placed in pots 4 inches and 5 inches in diameter. Careful watering must be the rule, and a close watch should be

kept for green fly, which will soon do irreparable damage. Good turfy loam, decayed manure and partly decayed leaf-mould make an excellent rooting medium. Grow the plants in a cold frame until the autumn. If a batch of plants are required to bloom late in the spring, a little seed should be sown without delay.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Flower Garden.

Bedding Out Tender Plants.—The time has now arrived for finishing this work, those usually left till the last being plants that are easily damaged by frost, such as Dahlias, Begonias, Heliotropes and Ageratum. Stout stakes for Dahlias should be placed in position before planting. The plants, having grown to a good height, will require tying to the stakes at once. The ties ought to be made quite loose, to allow of plenty of room for the main stems to develop without restriction. The Begonia beds should have been prepared previously with good supplies of well-decayed manure, as these plants require a rich, moist position to develop properly, and if an effective display is expected, the plants must be placed close enough to each other so that, when fully developed, the foliage will entirely cover the beds. Begonias are best planted in masses of one colour, and if one does not care to raise from seed and classify his own seedlings, dry bulbs can be purchased in all shades at a very moderate price. Some of the double-flowered varieties, such as Lafayette and Major Hope, are more expensive; but the careful propagator can soon increase his stock by cuttings taken soon after the bulbs have started into growth. The double varieties are of neat and compact growth and very floriferous, and I have seen them used with excellent effect as an undergrowth to some tall-growing subjects.

Heliotropes.—One or two beds of Heliotrope should be included in most flower gardening schemes. These look especially well if a few standards are dotted throughout the beds and stand clear over the dwarf plants. The variety Lord Roberts is a general favourite, being dwarf in habit with immense flower-heads.

Fuchsias.—These are not so much used as bedding plants in Scotland as in the Southern Counties, but they are well worth giving a place in the flower garden, and a bed may be made up either of spring-rooted cuttings or of plants discarded from the greenhouse. Even old, scraggy plants from pots will rejuvenate wonderfully after being planted out, and flower the whole season. Where Fuchsias are used regularly for bedding out, a selection of the freest-flowering varieties should be made.

The Frames.—With the clearing out of all the bedding plants the frame ground will assume a less congested appearance, and many plants from the houses badly in need of more room and air can be accommodated in cold frames. All the soil and weeds being cleared away, a fresh coating of ashes should be given where it is intended to place those in pots. Primulas, Cinerarias, Cyclamen, Bouvardias, Geraniums for winter flowering, Poinsettias, Tuberoses and Cypripedium insigne are a few of those annually placed in cold frames as soon as the bedding out is finished. Ventilation, shading and protection at night must, of course, be attended to with discretion.

Seedling Begonias.—Those sown early in January having been pricked out twice and now growing freely in boxes should be planted out in one of the cold frames, giving a light, open mixture composed of loam, leaf-mould, sand, and some manure from a spent Mushroom-bed. The frames ought to be kept moderately close for a time, damping and shutting them up early in the afternoon until the young plants have made a good start again, after which cooler and more airy conditions should be provided, and by the autumn every plant ought to have formed a good-sized bulb and be in full flower, when they should all be

marked in their colour group for use as bedding plants next season.

Plants Under Glass.

Azaleas.—These, having now completed their growth, should be placed outdoors for the summer. The pots ought to be plunged to the rims in coal ashes, the foliage syringed twice daily in hot weather, and the pots given an occasional stimulant. A position where they can be partially shaded from the hottest sun suits them best. The same remarks apply to greenhouse Rhododendrons.

Gardenias.—When these have finished flowering, the plants should be examined and cleaned if necessary. They may also be trimmed into shape by the free use of the pruning-knife, for they soon become unshapely if not trimmed annually. Cuttings root easily at this season if placed in a close propagating-frame, and it is desirable to always have a few young plants coming on.

Begonias Gloire de Lorraine.—A portion of these should now be ready for potting into their flowering pots, or into baskets for hanging from the roof of the greenhouse. The soil must be light and sandy, and made only moderately firm. The temperature and partial shade afforded in a Melon-house suit them well at this season.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

PREVENTION OF AMERICAN GOOSEBERRY MILDEW

EXPERIMENTS which have been conducted during the last three years at Wisley on the American Gooseberry mildew have this year been productive of striking results. By the use of a modified form of Burgundy mixture an early outbreak on the foliage and berries of over one hundred bushes, comprising several varieties of Gooseberry exposed to infection, has been completely prevented.

The mixture was used according to the following formula: Strength I.—Copper sulphate, 8½ oz.; washing soda, 9½ oz.; soap, 100 oz.; water 100 gallons. Strength II.—Copper sulphate, 40½ oz.; washing soda, 45½ oz.; soap, 100 oz.; water, 100 gallons. The chemicals were dissolved separately, the solutions mixed when quite cold, and the soap added last. Both strengths proved effective.

Spraying took place on May 20 at 6 p.m. (Willett's time) when the bushes were just dry after gentle rain in the afternoon.

In the critical experiment the sprayed and unsprayed bushes were situated in a square of 100 square feet area, outlined at the angles by old bushes to provide sources of infection. There are within each square three unsprayed bushes and one sprayed bush of the same variety. Of the sixty squares, over forty are now infected with mildew, some very heavily, the outbreak occurring chiefly in the berries. At the time of writing no mildew has been detected in any of the sprayed bushes, even when completely surrounded by infected ones. Whereas all the berries on the sprayed bushes are absolutely free from mildew, many on the unsprayed bushes are heavily infected with the early "white" stage of the disease.

In a further experiment all the bushes in a small plot adjacent to the main experimental area were sprayed, and are now also free from mildew.

Burgundy sprays leave a fine deposit on the berries, consisting of a mixture of the precipitates of copper carbonate and sodium sulphate. But since nearly the whole of this deposit can be removed by a sharp rinsing in tap water, there should be no difficulty in devising a plan for thoroughly cleansing the berries. DR. HORNE.

Royal Horticultural Society's Gardens, Wisley.

EDITORIAL NOTICES

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS
TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

SWEET PEAS (Regular Reader).—If, as we imagine, you are growing the plants for exhibition purposes, or, indeed, for any special purpose requiring the largest and best-formed flowers on the longest and straightest of stems, all side shoots should be discouraged from the start. If taken quite young they are easily rubbed out with the finger. Equally important is the early removal of the tendrils, as these, if allowed to remain, not infrequently coil round the stem or flower, to the disfigurement of both. Moreover, crooked stems would be quite unsuited for exhibition work, or, at least, would stand but little chance of winning a prize. With the tendrils removed, early and continued attention to tying the main growths is most important.

TULIPS WITH MORE THAN ONE FLOWER (A. Swann).—There is nothing unusual in the Tulip producing more than one flower to a stem, though so many as five on the Darwin Flambeau, or, indeed, any sort, is less frequent. This prolificacy of blossoming is not easily accounted for, and may be due to exceptional bulb vigour or development, or partial reversion to some long ago ancestry of the race from which they sprung. At the present time we have several Cottage and other Tulips each producing two and three flowers on a stem, and rarely a year passes without evidences of a like nature. In this connection it is interesting to recall that several species of Tulipa—e.g., persica, biflora and dasystemon, among others—all produce two or more flowers on a stem, and, that being so, it is just as likely that some of the early progenitors of the present races may have been similarly endowed. If so, the flower prodigality of which you write would be more easily explained.

A DAFFODIL QUERY.—"G. A." enquires whether the "picking of the flowers of Daffodils conduces to or takes from their flowering in the following year—does it strengthen or exhaust them?" This is the answer. The exhausting processes in the case are those of flowering and seeding, the latter more particularly; hence a plant or bulb early relieved of its flower would be enabled to direct its whole energies to the building up of a new and, in the circumstances, probably a better bulb in some respects than could have been possible otherwise. In this way the early gathering of the flower should go to strengthen the bulb to be. In the Daffodil and some other bulbous plants a new bulb centre or core is built up each year, the embryo flower-bud the result of the development of a season's growth or work. Thus the germ of the flowers we saw recently was laid so long ago as July, 1915, or even slightly before this; the flowering of the present year, while exhausting the centre, creating the need for a new one to repeat the process. A good flowering in the Daffodil is much assisted by autumn and winter wet, in conjunction with a genial and moist spring, with early summer warmth to ensure complete maturity and ripening.

THE GREENHOUSE.

ADVICE ON A GREENHOUSE (H. B. P.).—You are not likely to meet with any great measure of success in growing a collection of decorative plants in a structure devoted to Tomatoes. The Tomatoes will require all the sunshine they can get, whereas plants grown for decorative purposes need more or less shade. Climbing Roses would be sure to be a failure, as they would be ruined by insect pests, and besides, during the summer months Roses are plentiful out of doors. Furthermore, the Tomatoes would be trained up the roof, and climbers would then be totally out of place. You speak of ornamental grasses for table decoration. If you mean using them for cut purposes, we may point out that most of these grasses may be sown in the open ground, which should, however, be done as soon as possible. If the Tomatoes are planted in a border and trained up the roof, you will find that there is not much space for other plants, as, of course it will be necessary to get about underneath for training, &c. In the autumn the house might be useful for protecting Chrysanthemums and other plants. Should you decide to heat your structure, such subjects as Zonal Pelargoniums, which may be grown outside during the summer, will yield a profusion of blooms during the dull season. We are handicapped in answering your query by a total absence of particulars as to any other convenience that you may have for growing plants. At all events, do not aim at dealing with too many subjects.

LEUCOPHYTA BROWNII (F. W. H.).—This Leucophyta, which, by the way, is also known as Calocephalus Brownii, will grow during the summer out of doors in semi-shade. Under such conditions, however, the intense silvery whiteness which forms its most prominent feature is less marked than if it is fully exposed to the sun. It belongs to the vast Order Compositæ and is a native of Australia, where other species of the genus are found, but this is the only one in general cultivation in this country. After the bedding season is over, and before frosts make their appearance, the plants should be carefully lifted and potted in a mixture of loam, leaf-mould (or peat) and sand. They must then be kept in the greenhouse during the winter, giving enough water to keep the soil moderately moist, but not watered overhead. Propagation is effected by cuttings. They may be taken from the old plants in spring, or from those in the open ground in August. A length of 2 inches to 2½ inches is very suitable for the cuttings, which should be dibbled into well-drained pots of sandy soil passed through a sieve with a quarter of an inch mesh. Those taken in spring should be placed in a close propagating-case in the warmest part of the greenhouse, and be kept shaded till they are rooted. The August cuttings, on the other hand, will strike in an ordinary garden frame out of doors. Of course, they must be kept close and shaded; but should any signs of decay set in, a little air must be given at times. If potted off when sufficiently rooted, and wintered in the greenhouse, they will form nice little plants by the spring.

FRUIT GARDEN.

INJURED VINE LEAVES (A. G. W.).—The Vine leaves are attacked by a mildew, Botrytis cinerea, which is common on a large variety of plants. It is probably encouraged by the house having been kept too moist and close, and to avoid its recurrence it will be well to see that ventilation is properly attended to, and possibly sulphuring the pipes may be a help.

GOOSEBERRY BUSHES DISEASED (Miss I. R.).—The Gooseberry shoots are dying from the base. The specimens sent are insufficient to enable us to say what the cause of the trouble precisely is, but it is in all probability due to a fungus, Botryosphaeria ribis. It will be best to cut out all the affected branches completely and burn them. Manure the bushes so as to induce new growth.

GRAPES WITH BUNCHES GROWING UP TO THE GLASS (C. W.).—This is the first time we have heard of Grapes growing up to the glass. The natural way is for them to hang down from the branches on which they are growing. The way to summer prune a Vine is to cut back the end of the shoots on which the Grapes are growing to the base of the third leaf situated higher up, or beyond where the bunch of Grapes is growing. Subsequently, all the young shoots which may show on the branch so cut back during summer must be stopped as soon as a third leaf has been formed. Stopping means the pinching off with the finger and thumb of the young centre or top of such young shoots as soon as they attain this size. Doing this will keep the growth under control and prevent its overcrowding with useless young or lateral shoots.

PEACH TREES FAILING TO FRUIT (R. E.).—You say the trees bloomed freely but that there was no pollen on the anthers of the bloom. There is no doubt, we think, but that the cause of the failure of the trees to set a crop was due to the absence of pollen on the flowers, and not to bad weather, especially as you had some heat in the pipes. We think that the soil of the border has become exhausted and more or less worn out of the essentials necessary for the production of fruit, and especially of lime. It is too late now to take up and replant the trees, but not too late to give them a top-dressing of good fibrous loam, adding 1½ gallons of lime, 3 pints of bone-meal and the same of soot to every barrow-load of the loam, also adding a bushel of brick-ends, broken small (size of Walnuts), to the same quantity. Take off the surface soil deep enough to expose a few roots and then add the top-dressing 6 inches deep, treading it down firmly. Apply while fairly dry and water after-

wards. The trees, you will find, will root freely into this mixture during summer, be greatly benefited as a result, and we hope will fruit freely next year.

MISCELLANEOUS.

BIRD FOR IDENTIFICATION (J. L., Atherstone).—The bird which has been accidentally shot is a female red-backed shrike or butcher-bird (Lanius collurio). It is most plentiful in the south-eastern counties, rarer in the north and west, and does not breed in Scotland or Ireland.

VARIEGATED WOODY NIGHTSHADE (S. W. G.).—A variegated form of the Woody Nightshade, Solanum Dulcamara, has been known and grown here and there for a long time. It occasionally appears in catalogues under the name of S. Dulcamara variegata, as, for instance, in Messrs. Loddiges' catalogue, edition 1836. The name was used long before that, however—by Tournefort, e.g., in 1717.

BOOK ON DAFFODILS FOR EXHIBITION (T. W.).—We advise you to get "The Book of the Daffodil," by the late Rev. S. E. Bourne, and "Daffodils," by the Rev. J. Jacob. The first named was published by John Lane, London, and the second by T. C. and E. C. Jack, Edinburgh. From these volumes you will get a great deal of reliable information. The "Daffodil Year Book" of the Royal Horticultural Society for 1915 should also be obtained. It gives lists of winning flowers in London and at Birmingham.

SEED OF UNCOMMON PLANTS (J. H. S.).—It is improbable that the seed of the various plants about which information is sought could be procured from ordinary seed establishments, but it might be worth while to try Messrs. James Carter and Co., Raynes Park, Surrey, England; or Messrs. Vilmorin and Co., seedsmen, Paris. Cytisus Dallimorei is a hybrid, and a small percentage only of the seedlings come true to name, the remaining seedlings bearing flowers of all colours, from white to yellow and purple. Perhaps the United States Bureau of Plant Industry could assist you as to the means of securing seeds. Try the Department; you will have no difficulty in obtaining the correct address, as the office is in Washington, D.C.

INSECT PEST ON A TIME-HONOURED PLANT.—I enclose these leaves of "Our Saviour's flannel" to ask, What is this blight on them? I have known the plant for forty years, and always thought it free from any form of insect or other plague, and as my mother loved it I planted it as an edging round her grave. But on going there last week to plant the grave with flowers for the summer, I found to my dismay that the edging was infested in this manner. What is it, and how can it be got rid of? —ANNE AMATEUR. [The Stachys is attacked by the larvæ of a moth, which have rolled themselves up in the leaves and are thus protected from the action of most insecticides. Next to hand picking, we think sprinkling the foliage with a solution of lead arsenate or Paris green, or dusting it with Hellebore powder as from a pepper caster, would be the best means to adopt in order to check the ravages of the pest.—ED.]

NAMES OF CHRYSANTHEMUMS (M. J.).—The name of the white incurved Chrysanthemum to which you refer is Mrs. George Rundle, the yellow variety being Mrs. Dixon. There is also a light yellow or primrose-tinted kind of the same section, known as Mr. George Glenny. They are well suited for growing into specimen plants, and at one time trained examples of all three were to be met with at many of the Chrysanthemum shows. In order to form a plant such as you require, it will need a pot 10 inches to 1 foot in diameter for its accommodation. Such being the case, you are not likely to meet with any measure of success in attempting to grow it in a large pan. Furthermore, you will be late in starting, as a plant intended for training should by now have attained a good size. In order to form such a specimen the young plant should be taken in hand by the beginning of March, and must be stopped three times while growing in order to form a bushy specimen. From the small pot in which it is at first, it must be put into one 6 inches in diameter, and, after that, shifted into the pot in which it is to flower. It may be stood out of doors during the summer. As the buds show, the wire support should be put in its place and the shoots secured thereto. Previous to that, the shoots must be staked out into the position they are to occupy later on. If the gas cooking stove is used, Cucumbers and Tomatoes will not succeed in the greenhouse.

WINTERING GERANIUMS (C. B. R.).—If you followed the advice given you last autumn to pull up the Geraniums when they had done flowering and hang them up in an outhouse, you may depend that they have all quite perished by now. You ask if the dead stems should be left on. To this we answer that if you examine the plants you will most certainly find not only the stems, but also the roots quite dead. Geraniums, or, more correctly, Pelargoniums, should not be planted out at the earliest before the latter part of May. Before treating Pelargoniums in the drastic manner suggested, it should be borne in mind that the original species whence these garden varieties have sprung are all natives of South Africa, where there is but very little frost and the atmosphere is very much drier than it is in this country. Although you have no greenhouse, a spare room or window may be available. In this case a fair measure of success in wintering the plants may be obtained by pulling them up, shortening any long, straggling roots and tall shoots, and at the same time cutting off some of the larger leaves. Then plant them thickly into shallow boxes of fine, dry soil, and stand them in a position where they can get as much light and air as possible. They will require scarcely any water throughout the winter, but with the return

of spring a little moisture must be given. In severe weather cover with newspapers, and take care to pick off any decaying leaves.

ADVICE ON HANGING BASKETS (*Ivy*).—You give us no information whatever concerning the position the hanging baskets are intended to occupy. It may be they are for a verandah or similar position out of doors, for a greenhouse, or even for a warmer structure. It is evident that different plants are required for these various positions, though for a summer display in the verandah and in the greenhouse much the same plants may be used. Desirable subjects for growing in suspended baskets in the greenhouse are Ivy-leaved Pelargoniums, loose-growing, single-flowered Fuchsias, Petunias, Campanula isophylla, Lobelia tenuior, Tropæolum Lobbianum, and the drooping or partially drooping varieties of tuberous-rooted Begonias. These will keep up a display of bloom throughout the summer months and well on into the autumn. Other suitable subjects are Lachenalias, which if planted in August will flower in the spring, while permanent plants which depend for their beauty upon their foliage are Asparagus deflexus, A. Sprengeri, Chlorophytum elatum and its variegated-leaved variety, as well as Stenotaphrum glabrum variegatum, a rapid-growing Grass. All of the subjects above named will succeed in what is regarded as ordinary potting compost, say, two parts loam to one part of well-decayed leaf-mould and a sprinkling of silver sand. The main essential in planting hanging baskets is to see that they are thoroughly lined so that no loose soil can escape. In some woodland districts large flakes of moss can be obtained, and when this is the case they form an ideal lining for baskets. Failing these, very thin turves may be used, but they are not so well suited for the purpose as flakes of moss. In planting, care must be taken that the lining material is well knit together, and then the selected subjects must be planted in the basket in the same manner as if they were being put in pots. The soil must be kept just below the rim of the lining, otherwise it is liable to be washed off when watering. A thin flake of moss on the top, held in position by a few pegs, is an advantage. Hanging baskets must be kept well supplied with water in order to ensure a good display of blooms. With regard to the Rose, you do not tell us anything as to the condition in which it is now in; hence our advice can only be taken as general. This Rose must not be pruned hard, otherwise growth and not flowers will result. It blooms on short laterals from the shoots of the previous year. The main object in pruning is to preserve as much of the good wood of the previous year as possible, cutting away as much of the old and exhausted portion as can be spared. If under glass, pruning is best done early in the year before growth recommences, while in the open ground it should not be done till spring. In any future questions it would be a great help in answering them if more details were given.

NAMES OF PLANTS.—*Una*.—Streptosolen Jamesonii; it is a native of Columbia.—*Torquay*.—Rose Fortune's Yellow.

SOCIETIES

GARDENERS' PROVIDENT SOCIETY.

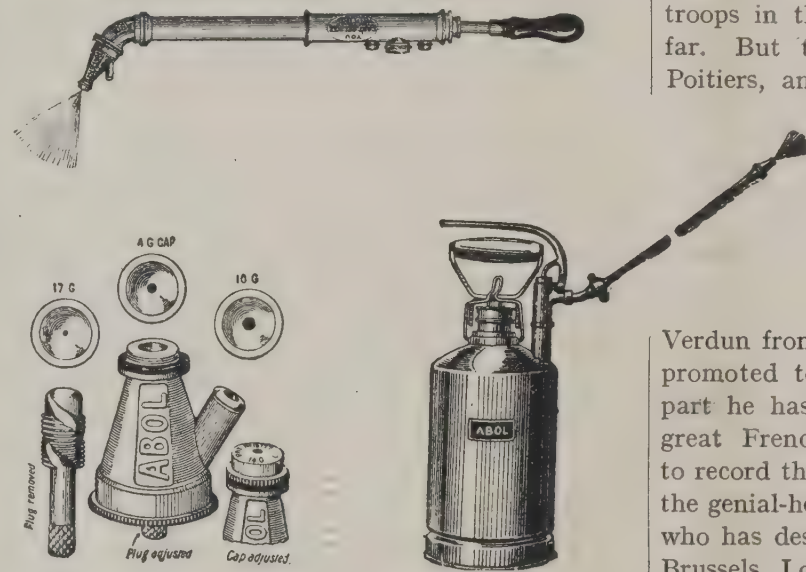
THE monthly meeting of the United Horticultural Benefit and Provident Society was held at the Royal Horticultural Society's Hall on Monday, June 5, Mr. Charles H. Curtis presiding. One new member was elected. One member withdrew from his deposit account the sum of £105 12s. 7d., still leaving a balance of £10 to his credit, and one member was allowed to withdraw a double amount of interest, viz., £2 10s. 10d. The sums of £47 1s. 6d. and £5 17s. respectively were passed for payment to the nominees of two deceased members. The sick pay for the month on the ordinary side amounted to £43 1s. 8d. and on the State side to £19 0s. 10d., and maternity claims to £10 10s. A copy of the Interim Report of the Departmental Committee on Approved Societies was read, and it is hoped that the recommendation by them will be carried out, viz., "That all societies of over 1,000 members will not have to associate with other societies for pooling surplus funds."

HIGHCLIFFE GARDENERS' ASSOCIATION.

MR. J. J. KETTLE of Corfe Mullen, Dorsetshire, who is well known in this and foreign countries as a grower of Violets on a large scale, gave a very interesting and instructive lecture on their culture before the members of the above association on June 5. The lecturer said Violets liked chalk, and where soil was deficient in lime some should be added to it. They also did well where there were decaying tree leaves and potash; and did well in land, even if of poor quality, if it was deeply tilled and dressed with kainit. He had grown some of his finest crops in newly broken heath land that was very poor, after well breaking up the subsoil and using kainit. He preferred horse to cow manure. But he had found the plants to do well in all kinds of soil—that which was of a deep black, sandy nature and that which was clayey. If the clayey soils were kept open and porous, the stems of the flowers were extra strong, also the leaves grew strongly, and without good foliage it was not possible to have fine flowers. March and April were the best months in which to plant out, and October the best in which to lift the plants for flowering under glass, as they made such excellent growth in September and it was unwise to disturb them then. In planting allow a space of 1 foot between the plants and 2 feet between the rows, so that the roots would not entirely occupy the

soil between the rows and suffer if a dry spell came late in summer. For this reason, too, the manure should be well buried, so as to keep the roots away from the surface. Hoeing the soil between the rows early in the morning while the leaves were moist with dew was a good preventive of red spider, as the dusty soil adhered to the under sides of the leaves and was distasteful to the spider. He grew many of his Violets between rows, wide apart, of Black Currants, Pears, Gooseberries, Asparagus, Peas, &c., and was now intending trying Sage, as the latter retained its leaves during the winter months and formed a good shelter. Violets required shelter from cold winds, but not necessarily much shade. He advocated close planting under glass, and very frequent light watering till the new roots were active. The soil must be firm, and air very freely admitted except in frosty weather. There was a good discussion, the lecturer replying ably to many questions. He was very heartily thanked as was also Mr. Cuell, who presided.

Military Service Act and Friendly Societies' Contributions.—As a large number of your readers who belong to a friendly society will be called up under the new Military Service Act, the following questions and answers asked in the House of Commons may prove instructive to them as to their position. Forms may now be obtained from the post office to be filled in for claims. On May 24 Mr. Montague Barlow asked the President of the Local Government Board whether the relief scheme for men called up to join the Forces



"ABOL" SYRINGE OF THE LATEST PATTERN, THE PATENT NOZZLE, AND HAND SPRAYER DE LUXE.

contains any provision covering the liability for friendly societies' contributions, and, if not, whether he will consider extending the provisions of the scheme so as to cover this liability? The Parliamentary Secretary to the Local Government Board (Mr. Hayes Fisher): "Yes, sir. If a member of a friendly society is unable by reason of undertaking military service to pay his contributions to the society and is thereby in danger of forfeiting his rights to benefit, he may apply for assistance to enable him to continue his contributions. The form of application provides for an entry in respect of expenditure of this nature." Mr. Barlow: "I take it it will apply to applications under an insurance with a friendly society?" Mr. Hayes Fisher: "All obligations connected with insurance."—A. C. HILL, Secretary, United Horticultural Benefit and Provident Society.

War News from France.—At Lille, long held fast in the grip of the Germans, there is an excellent horticultural society. The Van den Heedes (father and son), Emile Mulnard, the Comte Méry de Montigny, Oscar Fanyan and others in the vicinity are names that occur to us as friends who have offered us a friendly welcome in days gone by, but of whom we can now learn

nothing. We can but hope for the best. And as we sit and linger over our reminiscences of past happy days spent in joyful surroundings beneath the sunny clime of France, at gatherings from Lille in the North to Biarritz in the South, we cherish the hope that some day—the sooner the better—there will be a joyous reunion of all the old friends who are spared, when the horrors of war are over and peace shall reign once more over the devastated country. Roubaix we know, too, and have pleasant memories of a visit there many years ago. But the Germans hold that town also. Bailleul, not far away, is fortunately clear, although the Germans have been through it twice. The famous Grapperies du Nord, owned by M. Anatole Cordonnier, are still being worked, and we were pleased to notice that at one of the recent meetings of the National Horticultural Society in Paris some fine bunches of Black Alicante Grapes from that establishment were exhibited. Bailleul is a quiet little old-world village on the Calais-Lille line of railway, and here we once passed a pleasant Sunday in the autumn time, when M. Cordonnier's famous Chrysanthemums were in full bloom. At present Mr. Thomas Atkins is there in full force, little dreaming, perhaps, that in the days of Edward III. the English troops in their invasion of France pushed on as far. But that was in the days of Crécy and Poitiers, and the old-time enemies are now fast

friends and allies fighting in a common cause. *Tempora mutantur, nos et mutamur in illis.* Our latest news is from the Parisian region. M. S. Mottet, who is a well-known horticultural writer, has his son, Sergeant Paul Mottet, on the Verdun front. This young man has recently been promoted to the rank of sous-lieutenant for the part he has taken in the heroic defence of that great French stronghold. Then we are pleased to record that our dear old friend Jules Vacherot, the genial-hearted and capable landscape gardener who has designed and laid out French gardens at Brussels, London, Ghent and other places besides Paris in great number, has had his son-in-law, M. Raymond Sou, mentioned in the Order of the day. We offer our hearty congratulations to him and to M. Mottet on the occasion.

TRADE NOTE.

THE NECESSITY OF SPRAYING.

TIME has proved the necessity of spraying, but this year it has been brought home to us more forcibly perhaps than ever before. Seldom has there been occasion for the very frequent use of syringe and sprayer owing to the caterpillar and fly pests on fruit trees, Roses and other plants. Many readers are already aware of the great value of the "Abol" syringe and insecticide for cleansing their plants. We cannot speak too highly of them, and trials have proved their efficiency. The Hand Sprayer de Luxe is particularly useful at the present time, since it may be used with ease by anyone who is not accustomed to manual work. It is a perfect hand machine, with an automatic valve giving instant control of the spray. It is simply charged with three or four pints of liquid and pumped about sixty strokes, when it gives a mist-like spray easily controlled and unsurpassed for economy and efficiency. It is one of the best labour-saving appliances with which we are acquainted.

The War Office notifies that from now onward all papers posted to any neutral European country will be stopped, except those sent by publishers and newsagents who have obtained special permission from the War Office. Such permission has been granted to THE GARDEN, and subscribers who send to friends in Denmark, Holland, Norway, Sweden, Switzerland, Spain, Portugal, Greece, and Roumania should order copies to be despatched by the Publisher from 20, Tavistock Street, Covent Garden, W.C.

** The Yearly Subscription to THE GARDEN is: Inland 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

No. 2327.—VOL. LXXX.

JUNE 24, 1916.

NOTES OF THE WEEK

THE great event next week is the Royal Horticultural Society's sale in aid of the Red Cross Society, to be held at Vincent Square, Westminster, on June 27, 28 and 29. Magnificent gifts of plants, books and paintings are being offered, and the sale is certain to be of exceptional interest. All that is needed to make it a great success is a good attendance. The hours of the sale are from 11.30 a.m. to 1.30 p.m., and from 2.30 p.m. onwards, and admission will be by catalogue only, price 2s. 6d., to be obtained from the Secretary, Royal Horticultural Society, Vincent Square, S.W.

The National Rose Society.—We hear with pleasure that the takings at the Great Summer Show of the National Rose Society, to be held in the Royal Botanic Gardens, Regent's Park, on Friday, June 30, will go to the funds of the British Red Cross Society. A large attendance is anticipated, and it is expected that a very substantial sum will be secured for this excellent object, which appeals to all at the present time.

Plants for Hanging Baskets and Vases.—Ivy-leaved Pelargoniums, Fuchsias and Begonias are suitable for this purpose, and the best results are obtained when the basket or vase is filled with one subject and of one colour. This work should be done as early in the season as possible, so that the plants may become established before it is necessary to place the baskets in position. Tropæolums are useful plants for this purpose, and have the advantage of growing quickly. Fireball is a beautiful variety for filling large baskets, and is unsurpassed in colour.

A Hybrid Viola from Knapton.—At a recent meeting of the Royal Horticultural Society, Mr. Murray Hornibrook sent from his garden at Knapton, Abbey Leix, Queen's County, a Viola named knaptonensis. Although it had not travelled well, it nevertheless promises to become a great favourite. It is a hybrid between *V. bosniaca* and *V. tricolor*, having the colour (but richer) of the former and the "velvet" of the latter. Its flowers usually have lemon yellow blotches on the lower petals, but sometimes, especially in full sun, the flowers are altogether crimson-rose.

Tweedia cœrulea.—Those who grow stove plants should not neglect this South American Asclepiad, on account of its rare and remarkable quality of colour. Habit is its weak point; it is leggy and inclined to twine. No doubt in its native home it grows up through other plants; but the clever gardener will accept this as an indication of the way in

It is best known in gardens by the name Tweedia, though the synonym *Oxypetalum* is preferred by botanists.

Volunteers and the Country's Food Supply.—Regarding the shortage of labour on the land, a suggestion has been made to the War Office and the Board of Agriculture that they should utilise the services of the hundreds of thousands of men who are over military age who enrolled themselves at the commencement of the war in the various volunteer regiments. These men are eager to increase the food supply by working on the land.

Asparagus Beds.—The cutting of Asparagus must now be discontinued, as a portion of the growths should always be allowed to come to maturity for the purpose of forming good crowns for next season. These growths must be supported, as they are liable to be blown about and broken by strong winds. A few stout stakes should be driven in at intervals, with wires or twine stretched between, to which the shoots can be fastened. Plants which are intended for forcing should receive every encouragement to develop strong growths, stirring the surface soil frequently and giving an occasional dressing of salt or artificial manure during showery weather.

Pink Lily of the Valley.—One of the small novelties which probably ninety-nine out of every hundred visitors to the Chelsea Show missed was the small pink Lily of the Valley which was exhibited by Mr. Miller of Wisbech. The colour was rather dull, withal quite pleasing, but it was a decided pink. In size, fragrance and habit the plant was in every way an exact counterpart of the wild British variety; in fact, this sport or seedling was found nine or ten years ago in a wood in Norfolk. We think there can be no doubt but that it originated from it either as a vegetative sport or as a seedling. For the information of those who only know

"Berlin crowns," which are the Lilies of the Valley of the shops, our wild form is smaller, but it has a much stronger fragrance.

** Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.



TWEEDIA CÆRULEA, A LITTLE-KNOWN STOVE PLANT WITH TURQUOISE BLUE FLOWERS.

which he can best display it. The colour is a blue of a light turquoise quality when the turquoise has the slightest tinge of green. From this it passes to its own pure blue of the tenderest kind, finishing with a faint toning towards lilac. It seeds freely in cultivation, when it displays another kind of beauty in the mass of softest, glossiest silken appendage which is attached to the seeds.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Perpetual Spinach.—I have read with interest Mr. Castle's remarks on the above in *THE GARDEN* of June 10, page 291. I also have to cater for a family whose liking for Spinach is more pronounced than for any other vegetable, Peas perhaps excepted. Their opinion, however—with which I quite agree—is that Perpetual Spinach, or, more properly, Spinach Beet, is much inferior to real Spinach. It is quite true that real Spinach is out of the question during the hot summer weather, but why not substitute New Zealand Spinach (*Tetragonia expansa*), with its thick, succulent leaves and a flavour closely approximating to that of the true Spinach? Raised in heat in March, potted off into 3-inch pots, duly hardened off, and planted 3 feet apart in rich soil, a score of plants will yield an almost unlimited supply during summer and autumn. If a hardy plant is preferred, however, then I would advise sowing Silver or Seakale Beet, the leaves of which are superior to Spinach Beet, and the leaf-stalks of which furnish a second dish little inferior to Seakale. It is specially welcome during the late spring of the year following that in which it is sown, the date for sowing being early May.—**CALEDONIA.**

The "Daffodil Year Book."—It will come as a considerable blow to many lovers of the Daffodil, both in England and abroad, to know that the "Daffodil Year Book" is to be suspended. Letters have reached me from several different parts of the world during the past year or two showing how much the publication was appreciated. It is not surprising that during this last year there has been a considerable loss on it, but that does not justify its being dropped, even for a time. A peculiar futility seems to dog the footsteps of the Daffodil in the attempts made by the Royal Horticultural Society to do justice to it. The Royal Horticultural Society's Daffodil Show is a most wretchedly mismanaged affair, and it is withal so unhappily engineered that its numerous

mistakes and omissions appear to be traceable to no one. What a contrast to the Birmingham Daffodil Show, which is run by a business-like man (Mr. Herbert Smith) on business-like lines! We do know where we are with him, which is more than can be said at Vincent Square.—**NARCISSOPHILE.**

Ridding Lawn of Plantains and Dandelions.—I have been most successful in ridding my lawn of Plantains and Dandelions in the following manner: With a sharp knife I cut off the plant level with the soil; then one drop of paraffin on the exposed cut surface of the root does the rest. For holding the paraffin I find a cycle oil-can excellent. This method is very quick and absolutely successful. It also makes no holes in the lawn or one's temper.—**L. F. BARTON, The Retreat, Woking.**

— I have just noticed your answer to a correspondent on this question, and with all due respect I beg to state that Plantains can be destroyed by the use of common salt. I have proved it on my own lawn, but the work must be properly done. Put a teaspoonful of salt in the centre of each crown in dry weather. The weed is killed in forty-eight hours, and does not return the following year. Of course, all the Plantains cannot be destroyed in one season. There are numerous small ones almost impossible to see, besides seed in the ground; but anyone who will take the very slight trouble to salt these weeds for a few seasons will clear his lawn. I tried acids and various other methods with no success. Even digging them up is difficult, as one is very likely to break off a small portion which becomes a large weed by the next or the following season. The only objection I know to the remedy suggested is that it makes the lawn look spotty for a time, and for this reason it should be done early in the season when the Plantains are first seen. The grass then soon covers up the bare spot.—**HEATLEY NOBLE, Temple Combe, Henley-on-Thames.**

Roses on Their Own Roots.—I wish I could give Mr. Allen Chandler the information he asks for, but my gardener, Mr. Harry Farr, has joined the Army, and I do not know the names of the

different Roses he has succeeded in striking. But I do know that he hardly had a failure last year. The method he adopted was to make a mud pudding, push the cuttings into it, and cover them with a bell-glass, which was not removed until all chances of a frost coming had passed. Before striking our own cuttings we used to buy Roses on their own roots from Mr. J. J. Marriott, East Croft Nurseries, Sutton Coldfield. I do not doubt that Mr. Chandler is right in thinking that there are Roses which will not grow on their own roots. The note on green fly by "T. A. W." in your issue of June 10, page 283, is written by one who does not believe that giving guano-water to a Rose bush will kill the green fly on it. This may be true if it is on a Briar stock and growing as a standard. This I have not tried, but with bush Roses I have never known it to fail, although sometimes it has been necessary to give three or four doses. I do not think that the strong growth of the American Pillar Rose is a proof that it could not be given greater strength to resist the green fly if guano-water were given to it. We know that a growing lad is often in a very weak state and in need of extra food. Guano-water is of no use in helping plants to throw off black fly, as far as my experience goes.—**THACKERAY TURNER.**

Aquilegia and Columbine.—Mr. H. E. Molyneux asks (page 282, June 10), with reference to the Latin and English names of this plant, how it came to be named after two "such opposite and unlike birds as the eagle and the dove." It is easy to see why the flower was named from *columba*, a dove; a good single form is extraordinarily like a cluster of doves or pigeons sitting in a ring. But there is no resemblance to an eagle, and it is probable that the name *Aquilegia* is not, in fact, derived from the Latin *aquila*. That excellent scholar, my old and much-missed friend, Charles Wolley-Dod, long ago pointed out to me what I think to be the true etymology, namely, *aqua* and *lego*. The name, then, means "water-gatherer," and refers to a characteristic not of the flower, but of the leaves. This will be understood by anyone with an appreciative eye who will look at a Columbine plant, preferably before blooming, while it is yet a compact tuft

of its exquisite foliage, after rain or even a heavy dew. He will then see that the Columbine gathers and holds the moisture in the form of round, shining diamond-drops more strikingly than almost any other plant. A curious corroboration of this etymology may be added. In country places in Hampshire and Wiltshire, to my knowledge, and perhaps elsewhere, the wild Columbine still is a reputed medicine for the dropsy. Now the old herbalists, as is well known, held the doctrine of *signatures*, i.e., that curative herbs bore outwardly a sign or guide to their proper employment. Thus Hepatica or Liver-wort indicated by the form of its leaves the organ of the body for which it was remedial; and very many other instances could be given. The *Aquilegia* then was reputed to gather water or humours from the human body, just as its foliage collects the raindrops.—**G. H. ENGLEHEART.**



A GENERAL VIEW OF THE OPORTO ROSE SHOW.

A Rose Show in Portugal.—At a time when Portugal, the old Ally of England, is busily preparing its contingent to the army of the Allies, it may prove of interest to some of your readers to know that we also cultivate the arts of peace and have our horticultural shows. I send by this post photographs of our Rose show, which was very successful. The striking group of more than two hundred Juliet Roses was very fine, and was shown by one of our leading gardeners, Mr. Moreira da Silva.—BARON DE SOUTELLINHO, F.L.S., F.R.H.S., Oporto.

An Alpine Pansy.—In a recent issue of THE GARDEN there was a note on Alpine Pansies, which reminded me of a patch of *Viola gracilis Valderia* in my own rock garden. I sing the praises of this little Alpine Heartsease, which I have found to be one of the most truly satisfactory of alpines. I base this claim on the facts of its neat, low-growing habit, its wealth of flowers, the no-trouble it gives, and its perpetually clean, cheerful appearance even when no blooms are to be found. It never grows rank in foliage like other Heartseases, but contents itself with spreading gradually into a soft, dense mat of tiny leaves absolutely covered for weeks with the pretty flowers of soft bright purple blue, and of comparatively large size. It also refrains from seeding itself in the troublesome manner of the wild Heartseases; in the five or six years I have grown it, it has produced a few seedlings round about, but only sparingly. Surely it deserves to be more appreciated.—FRANCES E. WALSH.

The National Rose Society's Classes.—The schedule of the National Rose Society calls for some comment as regards the Tea Rose classes. In Division II. (any number of plants), in Division III. (under 500 Teas), and in Division IV. (under 200 Teas) are Classes, respectively, 80, 82 and 84 for six blooms of any variety. This seems to be a very unequal arrangement. Why, in Class 83 (under 200 plants), is the strength of exhibitors supposed to be the same as in Class 85 (under 100 plants), viz., six blooms, distinct varieties; why has the class for nine blooms (under 200 Teas) disappeared; and why is there a class for six only in this division? Last year there were classes for nine blooms and six blooms, a much more equitable arrangement. In the general classes, Section IX., Classes 63 and 64, what is meant? Do the words in parentheses mean the exhibitor is not to employ a gardener? as twenty-four blooms, distinct, is rather a tall order for a *pure amateur*.—AGRICULTURAL LABOURER.

Medicinal Herbs.—The movement for the promotion of the cultivation of medicinal herbs in this country should be developed on sound business lines and with a full knowledge of the plants which are really required. Some of the herbs that have been suggested for cultivation are not in general use by recognised manufacturing chemists, and are only employed in what are called "quack" medicines. One great difficulty in many districts lies in the inability of the few who are willing to take up the cultivation of medicinal plants to produce a sufficient quantity of any one herb to make it profitable to consign their crop to a manufacturing chemist. The latter will not deal with small quantities, and if the movement is to be a success in many districts, especially where a long railway carriage is necessary, co-operative effort is necessary. In the event of there being a number of small growers without glass or an open, sunny shed, it is also imperative that a central drying place should be secured, such as a large greenhouse, together with some



A GROUP OF ROSE JULIET AT OPORTO.

person to act as secretary or manager, who would receive the undried herbs, weigh them, see to their being dried, packed and despatched, and would allocate the proceeds in due proportion to the growers; in fact, to carry through all business arrangements and to work on even more detailed lines than the manager of a co-operative fruit farmers' association. I have no desire to throw cold water upon a movement such as this, but if success is to attend it, business methods must be followed. I would suggest that those endeavouring to begin such a movement in their own districts should call a meeting of all interested to discuss such points as these.—SCOTTISH GROWER.

LOVE-IN-A-MIST.

It chanced on a day, full long ago,
When the wind blew high, and the sun shone bright,
That Nature called on the flowers to know
How they paid the world, for its warmth and light.

Some by their rare and grateful scent,
Some by their beauty and slender grace,
Some only for useful tasks were meant,
And each was assigned its rightful place.

One, after another, she passed them by,
With a kind and a grave "Well done" to all.
Till she came at last to a tiny flower,
Misty, and shy, blue-eyed, and small.

"And what have you given the world," she said,
"In return for the rain, and the sun above?"
And sadly the little one drooped her head,
As she answered: "I've nothing to give but love."

Then Nature smiled at the wistful face,
As stooping, the timid flower she kissed,
And softly answered with tender grace,
"Thy gift is the best, sweet Love-in-a-Mist!"

LOIS PAYNE, in *Country Life*.

Tulips and the Season.—Tulips have been as good as usual in this district this season, although the later varieties suffered from a storm on the night of May 31, when in exposed positions. I have not observed any special prevalence of fungoid or other diseases.—S. ARNOTT, *Maxwelltown, Dumfries*.

—I was sorry to find the Rev. J. Jacob writing (issue June 3) in such low spirits about this

season's Tulips. For once we in the North must have scored through being a few days later, for mine have never been better, in spite (or is it because?) of the fact that owing to the prolonged frost in November it was impossible to plant them until the middle of December, when, on the first possible day, they were got in with some difficulty, as they had sprouted very much. We had execrable weather in March and the foliage suffered, as always here. But April was on its best behaviour, and the flower-buds developed well on old and new bulbs alike. I have no disease and no spotted blooms. The varieties in my long raised border sloping to the north are *Erguste*, *Vitellina*, *Grand Monarque*, *Mrs. Moon*, *Bleu Aimable* and *Bouton d'Or*, in the order named, and planted in well-separated groups among a mass of *Myosotis*. The background of Lilies, Grasses and shrubs affords them some slight shelter. They are very strong and erect, and no sticks are necessary. As I write (June 2) *Grand Monarque* is still as beautiful as ever. Apparently it is sunproof, and I love to see the sun shine through its rich red plum coloured flowers. With me all bulbs do very much better in raised positions than on the level. They like very good drainage—not a water-logged soil. I think the old Tulip growers realised this to the full. It does not seem at all necessary to lift the May-flowering Tulips, for a bed which I planted four or five seasons ago in my old garden (now in the hands of non-gardening strangers) has never been touched since, yet it has been more beautiful than ever this year and excited the admiration of all who passed by. The varieties there are *Professor Rawenhoff*, *Morales*, *Clara Butt* and *Mrs. Moon*. The position and aspect of the border are much the same as those of my present one.—W. D., *Cheshire*.

FORTHCOMING EVENTS

June 24.—Windsor, Eton and District Rose Show on The Slopes, Windsor Castle.

June 27.—Royal Agricultural Society's Show at Manchester (five days).

June 30.—National Rose Society's Show, Botanic Gardens, Regent's Park.

July 7.—The City of London Rose Society's Show at Cannon Street Hotel, E.C., in aid of the funds of the British Red Cross Society.

THE ROSES OF MAY

"A maiden is his guide

Lovely as Spring's first Rose."

SO wrote Wordsworth in his little-read tragedy, "The Borderers." Nowadays we are so accustomed to think of the Rose as pre-eminently a summer flower that the mention of the "Spring's first Rose" reads almost strangely. Some may say that the seasons have changed since the days of Wordsworth, but I do not think this is the case; it is rather that many of the old-fashioned early flowering Roses have given place in our gardens to the Hybrid Perpetuals and Hybrid Teas. The majority of these Roses require more or less hard pruning if they are to produce the perfect flowers of which they are capable, and this naturally tends to retard their flowering. The early flowering

for much of its characteristic beauty lies in the translucency of the red thorns on the young wood. Sericea itself is more graceful if allowed to grow as it will, and where room could be spared would make a handsome isolated specimen on a lawn. The spreading branches are produced well down to the ground, and in early autumn the flowers are followed by bright orange or scarlet berries.

The Spinosissima group yields many May-flowering Roses, of which Rosa altaica, from Central Asia, is perhaps the most lovely. It has large cream-coloured single flowers very freely produced, and if the shoots are tied down will grow into a good hedge, though I think the effect of a free-growing bush is more graceful and pleasing. Hispida is a pale lemon, and spinosissima lutea and xanthina are bright yellow varieties; while

growth, however, is so rapid and strong that the plants do not suffer to the same extent, even when attacked by these objectionable pests, as do the less vigorous Hybrid Teas and Hybrid Perpetuals.

Many of the Rugosas, though perpetual and excellent autumn bloomers, come into flower in May. The single rosy magenta America is usually the first, and was flowering this year on May 18. It was soon followed by the almost snow white Blanc Double de Coubert, the creamy Mme. George Bruant and the crimson Mrs. Anthony Waterer; while pinks in many shades and shapes are represented by Delicata, Conrad F. Meyer, Thusnelda, Rose Apples and others. Nearly all the Rugosas are so deliciously fragrant that they are worth growing for that quality alone. The double crimson Rose à parfum de l'Hay, which is also in flower this month, was considered by M. Jules Gravereaux to be the sweetest of all Roses.

The Chinas are another group which, if not pruned in spring, will flower right through May and thence onward to Christmas. The first to flower here is the tiny minima, one of Miss Lawrance's Roses, and the old Pink Monthly is not far behind it. Comtesse du Cayla, too, is already showing many of its bright coppery rose buds.

Rosa alpina, or the Thornless Rose, a native of the Alps, as its name suggests, should be welcome in the garden on account of its earliness. It makes a dense, rather low-growing bush, covered during May with bright rose pink blooms. Its variety pendulina has pure carmine flowers. The scent is resinous and most refreshing.

Rosa nipponensis, with larger and looser blooms, is also worth a place among May-flowering shrubs. The buds are crimson, opening to magenta; while R. rubella, a hybrid of alpina crossed with spinosissima, with pretty light green foliage and glowing rose-coloured blooms, is an altogether desirable plant. The bright pink pillar Rose, R. inermis Morlettii, with per-

fectly smooth red stems, is also related to the Alpina group. If we want climbers that flower in May, we can find plenty of Roses ready to give us early blooms. The old Dijon Tea Gloire de Dijon and the Noisette Rêve d'Or are among the earliest of Roses to flower.

The Hybrid Teas provide us in May with the brilliant Carmine Pillar and the softer-coloured Sheilagh Wilson (this is a perpetual-flowering variety); while on a south wall Lady Waterlow and Climbing Papa Gontier are full of bloom.

The most beautiful of May-blooming climbing Roses, and, indeed, quite one of our loveliest Roses at any time, is R. sinica Anemone. It is a hybrid of R. sinica, and, though very much hardier than its parent, certainly appreciates the shelter of a south wall. It has dark brown woody stems, from which appear short twigs bearing shining green leaves composed of three leaflets. The flowers are large and perfect in shape for a single Rose, and are produced in great profusion. They are of a wonderfully beautiful soft pink shade, veined and flushed with rose colour, the outside



THE PALE LEMON FLOWERS
OF ROSA HISPIDA.

bush Roses, on the other hand, rest their chief claim to beauty on masses of bloom mingled with the brilliance of fresh green foliage, and this can usually be best obtained by little or no spring pruning. May is the month of flowering shrubs, of the fragrant Lilac, the golden Laburnum, the white, crimson and pink Hawthorns, and if we plant the right varieties May will add to her attractions by giving us in our gardens great bushes of crimson and white and pink Roses.

As I write to-day (May 31) I can find some fifty different varieties of Roses in bloom, some already passing away, others in full bloom, others with their first buds just bursting.

Rosa sericea, from the Himalayas, is usually the first Rose to come out in this garden. It grows into a huge bush with very distinct Fern-like foliage and white four-petalled blooms. I noticed the first flowers this year on May 6. A few days later the variety sericea Pteracantha, with larger and purer white flowers and brilliant red thorns, was also in bloom. Sericea Pteracantha should be pruned hard back after flowering,

the more tender but very beautiful Hugonis has cup-shaped, soft yellow blooms. All the Scotch Roses are garden varieties of spinosissima, and most of them come into bloom in May. Stanwell Perpetual, a very fragrant and pretty blush Scotch Rose, is usually the earliest of these garden varieties, and, unlike the others, it goes on flowering quite late into the autumn.

In these days of diseases and pests, of black spot, red rust and mildew, which play such havoc among the Hybrid Teas and Teas, it is refreshing to turn to some of those hardy bushes which are seldom seriously affected by any of these evils; even green fly would appear not particularly partial to the thorny sericeas and the exceedingly spiny spinosissimas! This remark does not by any means apply to all the so-called species of Roses. Many, such as canina, are very susceptible to red rust, and are, alas! by no means distasteful to the various objectionable sawflies; and the Rugosas, which make some of our finest bush Roses, seem peculiarly attractive to green fly and caterpillars of every description. Their

of the huge shell-like petal being much paler than the interior. The golden anthers are abundant, much enhancing the beauty of the flower. They last in good condition for an unusually long time. The flowers keep well when cut and put in water, which is not always the case with single Roses. While in bloom there is nothing in the garden that can rival the beauty of the corner of the south wall where the rose pink blooms of sinica Anemone mingle with the deep crimson flowers of the old Hybrid Tea Bardou Job. Sinica Anemone needs very little pruning, and that little should be given when the plant has finished flowering.

Two of the Multifloras may be relied upon to bloom in May. These are the honey-scented, white-bloomed Grüss an Zabern and the pale yellow Aglaia.

Some brilliant-coloured flowers of Mme. Edouard Herriot (the *Daily Mail* Rose) in a bed on the lawn remind me that the Pernet group is a comparatively early one, and will soon be in flower. Both the Pernets and Multifloras, however, really belong to June, and I have written enough of May Roses to show that it is our own fault if our gardens are destitute of Roses during that month.

A visit to the Rose Dell and the shrubberies filled with Rose species in Kew Gardens is interesting at any time during the summer, but it is never more lovely nor more interesting than during the month of May, and at that time may be seen many early Roses of which I have made no mention, most notable of all, perhaps, the brilliant nasturtium-coloured Austrian Copper, which was magnificently exhibited at the National Rose Society's Spring Show this year.

WHITE LADY.

OLD TULIPS

THE Royal National Tulip Exhibition at Chelsea was an *imperium in imperio*.

I wonder how many of the huge crowd of visitors were aware of its existence, and, further, how many there were of those who found it who entered into its spirit. Said one lady to her friend in my hearing, after looking at the stands of bloom, "Something new, I expect." Little did she know that she was in the company of one of the very oldest, if not the oldest, man-made flower in existence. The flamed bizarre in one of Mr. Bentley's exhibits called San Jose was identical with Captain White, it was certainly in existence in 1798; while the very next bloom, called Victoria Regina, dates from Early or Mid-Victorian times, as the yellow stains in its interior would not be tolerated in a new flower nowadays. What battles royal, what heart burnings, what invectives its presence there calls up! Must the ground colour be pure, or does it not matter? That

was the bone of contention between North and South sixty years and more ago. And the spotless ground people won.

"But what good came of it at last?"

Quoth little Peterkin.

'Why that I cannot tell,' said he;

'But 'twas a famous victory.'

Ask, however, Mr. Bentley, ask Mr. Hall, ask Mr. Needham, our most prominent exponents of the cult of the English florist Tulip, and they will make answer that purity of base and interior

general and loose way, it was these discarded selves that gave a send-off to the Tulip boom of to-day. Some were there on Messrs. Hogg and Robertson's solitary exhibit of "May flowerers," just to remind us, it seemed, that, thanks to the fastidious tastes of the fancier, we have the beautiful and indescribable John Ruskin; the brilliant red coat, Caledonia; and that rich brown, superbly clad Hammer Hales. These probably are, with many another, old-time veterans newly found. These might have been there even if they were not. One striped form

there was, however, which amply made amends for any that were not—Zomerschoon, the marvellous pink-striped belle of pre-Waterloo days; the very same flower that Maddocks of Walworth put in his catalogues in the last decade of century number eighteen. "Something new, I expect"! As well call Apples new at the next fruit show.

JOSEPH JACOB.

VIOLAS FOR BEDDING

IT is difficult to conceive a more beautiful picture than the grouping of Violas at intervals throughout a long and attractive border of hardy flowers. To make an effective use of this subject, the colonies or groups should vary in size in proportion to the size and depth of the border in which they are planted. Groups varying from six to twenty-four plants in each make a most effective display, and if the colours are carefully chosen, so that they run in pleasing sequence right throughout the length of the border, the effect is distinctly attractive and pleasing. Striking contrasts may also be arranged with considerable effect if the more pleasing tones of colour are utilised. I was recently looking through a large and comprehensive display of Violas, in which the planting in effective contrasts was the object aimed at, and one particularly attractive and striking picture was that of the beautiful rich mauve purple Winchmore Bedder planted between two masses of the rich yellow

Moseley Perfection, and May, an even richer coloured variety and especially fragrant withal. This is just one instance of the way in which this subject may be used when planting in masses, either in beds by themselves, or as an edging to large borders, or in colonies at intervals throughout large borders of hardy plants.

There are other ways, however, in which the Viola may be used effectively and with considerable advantage to those who will break away from what has been regarded as orthodox in the past, and that is to utilise it as a groundwork to other subjects of tall and stately character,



ONE OF THE LOVELIEST OF ALL ROSES: ROSA SINICA ANEMONE.

means brightness and life, and that without that purity the colour is duller and sadder. I heard at this show of the death of poor old Knowles of Stalybridge. He had shown Tulips for fifty years and over, and belonged to the straightest sect of the fanciers, for on no consideration would he show a breeder (a self-coloured flower) nor admit one to his garden. History does not say who he expected to grow them until, as he would have put it, they had learned better ways. We are, however, greatly indebted to these particular people, for their cast-offs found their ways in numerous gardens and, speaking in a somewhat

and in this connection I may mention just two instances where the *Viola* excels. The *Viola* is now not infrequently utilised as a subject for planting between Roses and Carnations, and there are a host of other places where it serves an equally useful purpose. The advantage of using *Violas* in this manner is that they maintain a display of their ever-welcome blossoms over quite a long period, during which the other occupants of the same beds and borders are not in blossom. Apart from their usefulness in this connection, they also have a value for contrasting with the same subjects when they come into flower, provided proper care be observed in the grouping of the respective colours. Where the beds of Roses or Carnations are of mixed colours, this point need not be observed; but where the beds are of one variety or of one colour only, it should not be a very difficult matter to plant *Violas* of a colour that will pleasingly

to time varieties of coarser growth should have their old and somewhat elongated shoots cut out to make way for fresh young growths, each of which will flower in its turn, thus maintaining the display.

Frequent applications of liquid and other manures that it is customary to apply to the Roses or whatever subject may be planted in conjunction with the *Violas* afford the necessary stimulus that the *Violas* need to keep them in good health throughout their long period of flowering, and this is always reflected in the beauty and charm of the flowers of the latter.

The advantage of planting in the autumn, say, the early days of October, is that the display begins earlier in the succeeding spring; but where growers are anxious to fork over their beds of Roses, &c., in the spring, and cannot do so where planting the *Violas* in the autumn is practised, spring planting has its advantages. At this time it is safe to say that



THE OLD DOUBLE PINK PÆONY.

contrast or happily harmonise with the Roses or Carnations. The writer has in his mind's eye a garden in which there were about twenty-four large beds of Roses, having one distinct variety in each bed. The beds of Roses were planted with one variety of *Viola* only in each bed, and, due care being observed to prevent the clashing of colours, the result was a charming association. In the very early spring, long before the Roses put forth their leaves and buds, the beds were ablaze with colour from the *Violas*, and this continued right away through the summer until the autumn. The effect was very fine indeed, and many who visited the garden in question were so convinced of the value of the *Viola* in this association that the method came to be adopted in many other gardens as a consequence.

It is necessary to point out here that spent blossoms and seed-pods should be persistently removed regularly and systematically throughout the whole of the flowering period, and from time

beds and borders planted with *Violas* forthwith will very quickly adjust themselves in their new quarters and in a comparatively short time, and will make a display that will exceed the expectations of many.

Varieties, of course, vary considerably both in character and colour, and for this purpose the self-coloured sorts are more often in demand, but some of the edged and fancy *Violas* are very beautiful when utilised in this way. A few good selfs are the following: Mrs. E. A. Cade, a very early bright yellow; Moseley Perfection, rich yellow, large and strong growing; May, rich yellow, sweet scented, slightly rayed, early, rayless in warm weather; Winchmore Bedder, mauve purple, very effective; W. H. Woodgate, the nearest to a pale blue of all the *Violas*; Archie Grant, rich purplish violet (some say indigo blue); Cream King, cream; Swan, white; Seagull, white; J. B. Riding, rosy purple; Kitty Bell, lilac; Maggie Mott, pale mauve blue; John Quarton,

light mauve blue; Mrs. J. H. Rowlands, rose Primrose Dame, primrose; White Empress, creamy white; and the following edged sorts: A. S. Frater, white, edged mauve; Duchess of Fife, primrose, edged mauve blue; Kathleen, white, broadly edged purplish red; and Lark, white, edged blue. Fancies are Dr. Macfarlane and Mrs. Chichester.

Highgate, N.

D. B. CRANE.

THE OLD DOUBLE PÆONY

VERY old dwellers in our gardens are these hardy European Pæonies, and among the most beautiful too, with their handsome heads of blossom so freely produced. Though most often thought of in association with old gardens, yet there are no plants better adapted for making an effective show in the modern garden than a few clumps of one or other type of Pæony—European or Chinese. By using both kinds the flowering season will be prolonged, as the Chinese flower after the European. Planting can be done any time from September to March, the earlier the better.

Practically any ordinary garden soil will grow Pæonies, providing it be deeply worked and, if poor, well enriched. It is time well spent to thoroughly prepare the ground, as the plant may then be expected to remain and be a success for several years. Particularly, my experience has taught me, does this apply to the European section. I have in mind a clump of the old double red that never fails to flower in a garden in this district, and, so far as I can gather, it has not been disturbed for fifteen to twenty years.

Pæonies will grow well in sun or shade, but in the former position much more water will be required by them, while, of course, the flowers fade much quicker. An ideal position is that where the sun is not on the flowers continuously, being broken by some trees or a hedge; or such position as occupied by the plant in the illustration, namely, an east border backed by tall flowering shrubs.

Highgate, N.

C. T.

TRIALS OF AUTUMN-SOWN CABBAGES AT WISLEY, 1915-16

THE following awards have been made to autumn sown Cabbages by the Council of the Royal Horticultural Society after trial at Wisley:

First-class Certificate.—No. 85, Ellam's Earl Dwarf, sent by Messrs. Barr and Sons.

Awards of Merit.—No. 33, First and Best introduced by Messrs. Hurst and Sons, sent by Messrs. Barr and Sons; No. 29, Barr's Eclipse introduced and sent by Messrs. Barr and Sons and No. 73, Sutton's Harbinger, raised, introduced and sent by Messrs. Sutton and Sons.

Highly Commended (***).—No. 22, Flower of Spring, sent by Messrs. R. Veitch and Sons; No. 71, Sutton's April, raised, introduced and sent by Messrs. Sutton and Sons; No. 102, Spring Beauty, raised, introduced and sent by Messrs. Bath, Limited; No. 24, Sutton's Flower of Spring introduced and sent by Messrs. Sutton and Sons and No. 34, First and Best (Hurst's), introduced by Messrs. Hurst, sent by Messrs. Barr and Sons.

Commended (**).—No. 30, Early Favourite sent by Mr. J. P. Farr; and No. 31, Sutton's Favourite, raised, introduced and sent by Messrs. Sutton and Sons.

NOTES FROM MYDDELTON HOUSE GARDEN

BY E. A. BOWLES, M.A., F.L.S.

CAMPANULA PATULA is one of the pleasantest weeds of this garden. It would like to fill every half-shaded corner with its flat, lively green rosettes in winter, and masses of large starry blossoms from June to December. It is so charming among Ferns, Lilies, Bamboos and most plants that like the same cool and moist quarters, that I leave it to cover the ground they do not whenever it is not too pushing and greedy a neighbour for a choice and delicate treasure.

It has to be pulled up when it crowds up such plants as *Kirengeshoma palmata* and *Deinanthef bifida* or choice alpine Primulas, and therefore is often treated as a weed. It is easily pulled up, for, being an annual, it has no tricky underground ways, no brittle rhizomes, or easily detached bulbils to produce a dozen or more wherever one is destroyed, and the scent of the young rosettes is rather like that of Lamb's Lettuce, so that, whether in the right or the wrong place, it is quite a pleasant weed.

It is a native plant and recorded from many counties, but I have never seen it growing in any quantity except in Monmouthshire, where it is very abundant in hedge banks between Tintern and Monmouth. I am often surprised to find how few of the many good gardeners who come here to see my plants know or grow this one. In one portion of the garden where good forms of British Ferns and *Lilium giganteum* are specially catered for, the *Campanula* introduced itself, but made itself so agreeable that it is now welcomed and reckoned as an abiding guest there. Most of those who see its carpets of blue stars in June and July beg for plants of it. I believe one reason for this neglect is the fact that seeds of the greatly inferior *Campanula Rapunculus* have been widely sold under the name of *C. patula*. I grow both plants, but greatly prefer *patula*. Its freely branching, slender stems and upright, widely open flowers would be sufficient to make it superior to the Rampion, whose pendent flowers are arranged in stiff, closely packed spikes. Also *patula*'s neat and narrow winter leaves take up less room than the coarse tufts of *Rapunculus*, but it is by the wonderful colour of its flowers that my pleasant weed delights all who see it. In the bell of their throat they are a beautiful pale shade of cobalt blue, but the widely spreading petals that give the plant its specific name of *patula*, spreading, or open, are of such a warm rosy shade of mauve that in some lights they look almost crimson. Not the least of their charms are the conspicuous purple veins, three to each petal with a few branches from the outermost, that run from base to tip inside and outside, reminding one of those

on *Crocus pulchellus*. Once it gets into the garden and finds a cool spot, it is sure to seed itself about and appear rather too freely, but young plants are easily transplanted, and the flowers open freely and last a long time when cut and brought into the house. Therefore I advise everybody who has a garden with a yard or two of shade in it to let *Campanula patula* share those cool places with their present occupants. I have given up struggling to

all the more welcome. *C. pulla* is one of them, and I have never had it so fine before. I saw it spreading into yard-wide masses in Mr. Hornbrook's marvellous Irish garden, and begged for a piece in case it was an especially vigorous form; and the plant he kindly gave me has in one year spread out into a square foot of solid greenery, and is still pushing out in all

directions. The central portion is covered with the dark reddish purple bells, which, both by this depth of colouring and the peculiar angle of their downward pose, are unlike those of other Harebells. On a ledge of the opposite bank of the rock garden is a rambling drift of the beautiful little *Campanula* Mr. Farrer gave me as *C. cæspitosa* Miranda, though I believe he has some other name for it now. Its bluish grey, chubby bells on 4-inch stems make such a delightful contrast for the dark sombre ones of *pulla* as I have them gathered and lying before me as I write, that I

want to try to grow them in intermingling patches.

The hay meadows of the Roja and Vésubie valleys of the Maritime Alps are gay in June with a very fine form of *C. Trachelium*, which varies from purple to lavender, with occasionally a pure white form. I was so pleased with the lavender and white forms that I brought some home, and now wish I had collected many others, for I find these forms are not only taller and larger flowered, than my older forms of *Trachelium*, but, also, they flower quite a month earlier, and if cut down throw up fresh flower-stems in a surprisingly short time. They are beginning to seed about after the manner of the old and somewhat troublesome *C. Trachelium* of our gardens, and I hope some day to see our hay meadows enlivened by hundreds of their large bells. I have just measured one flower, and

find it is over 2 inches from base of cup to tip of petal.

One of the most striking plants now in flower is a good clump of *Vicia gregaria argentea*. Its pinnate leaves are even more downy and silvery than those of *Cerastium tomentosum*, and they heap themselves up into a mound of brilliant whiteness, with here and there a spike of rosy lilac flowers, whose colour is delightful against the silvery leaves. So many grey-leaved plants have white or yellow flowers that these look strange as well as beautiful in their silver setting.

Luzula nivea is a thing far too seldom planted. It is common in many sub-alpine districts, and always pretty when its light stems arch out from the rocks and its heads of white chaffy, starry flowers are open. In the garden it soon grows into a larger tuft than I have seen on the rocks, and the whole plant seems to gain in vigour.



CAMPANULA

PATULA.

(Two-thirds
natural size.)From a drawing
by E. A. Bowles.

grow the perverse and shy-blooming *C. abietina*, since I found out that *C. patula* was so much like it in flower and so much easier to please. This second week of June is rather early for *Campanulas*, so that some of the first comers that are already in bloom are

I have one in which the stems are a yard high, bending out all round. Each one bears four or five of the long grassy leaves, and is terminated by a branching cluster of Rush-like flowers of snowy whiteness. Seen from a little distance it looks as though the blossoms of some especially charming *Thalictrum* or *Spiræa* had been transferred to the stems of a graceful grass. Of course, it looks its best arching out from an upper ledge of the rock garden, but is by no means to be despised in an ordinary herbaceous border among such showy things as *Geranium platypetalum* and *Lilium croceum*, both of which are making a grand show of purple and orange just now,

WEeping TREES

THERE is nothing in the garden capable of affording efficient shade from the hot rays of the sun during the summer months so pleasantly as a well-grown tree of weeping growth; and although this fact appears to be well realised, it does not seem to be generally known that there are other weeping trees than the Ash and Willow. Apart from its usefulness, a well-grown weeping tree is decidedly ornamental, but to show its good points to advantage it must be strictly isolated. A weeping tree

CLIFTON DOWN: TO-DAY

By H. STUART THOMPSON, F.L.S.

LET me now briefly indicate some of the chief features in the vegetation and natural flora of Clifton Down and Avon Gorge as seen to-day, and in so doing confine my remarks strictly to the Downs, cliffs and adjoining woods on both sides of the river.

It is a matter of great satisfaction that notwithstanding the large numbers of persons—botanists, plant lovers and others—who visit the Downs and Leigh Woods opposite, and although much quarrying of limestone has been done in recent years, remarkably few species of plants have entirely disappeared from this area, so that the general character of its flora doubtless remains much as it was when visited by the early botanists three centuries ago. Indeed, thanks to the spread of botanical science and of education generally, a greater number of plants can usually be seen in the Clifton district by observant field botanists than was known to Ray or even Hudson.

Nevertheless, it behoves all collectors of plants to take from Clifton as little as possible, and to leave certain rarities severely alone. *Allium sphaerocephalum*, for example, grows nowhere else in Britain, and as it is a conspicuous plant it suffers enough damage from ruthless boys and other thoughtless persons. The Bristol Rock Cress (*Arabis stricta*) is in much less danger, because of its insignificant white flowers and the fact that it is somewhat widely spread, especially on the Clifton side of the Avon. *Hutchinsia*

petraea is another rare Crucifer found on the steep slopes of the Downs; but being one of the smallest and most difficult plants to find, its chief danger may be from boys and girls scrambling about the screes where it loves to hide. The handsome blue *Veronica hybrida* is a Bristol treasure always in some danger from the careless or selfish gatherer of wild flowers; but Mr. J. W. White thinks it may be more plentiful now than in the time of Lightfoot and Sir Joseph Banks, when quarrying of ballast for the West Indian sugar ships had laid bare much of the cliff face. This fine *Veronica*, which I observed grew rapidly under cultivation twenty-five years ago, has now been noticed in one or two places on the Somerset side of the river. It is a larger, more robust species than the little *V. spicata* of East Anglia, which formerly was confused with it.

Of Orchids, no fewer than fifteen kinds have been found in the vicinity of the Avon, most of which still exist in small quantity, and more than any other plants should be left alone. *Orchis ustulata* is probably extinct, but *O. pyramidalis* still lingers close to the promenaders, as do the Greater Butterfly Orchid, the Fly and the Bee; whereas



ASARUM GROWING IN THE JOINTS OF STEPS.

and to my idea always look the better for something grassy and cool in colour tone close beside them.

ASARUM EUROPÆUM IN WALL JOINTS

THE glossy-leaved *Asarabacca* is one of the best of plants for accompanying flowers planted in the cool sides of walls or in the joints of pavements. In the latter case planting is often much overdone, especially in the way of having too many different kinds of plants in sight at the same time. Such gardening is best of all when it is done by the plants themselves—as when a flower grows in a pavement from seed shattered by a plant above it in a wall or beside it in a border. Such was the case with the *Asarum* shown in the illustration. It was planted at the edges of the borders adjoining, and crept at its own will from both sides along the foot of the step. It is puzzling to know how it can have found root-hold or nourishment, for the steps had not been intended for planting and the joints were cemented.

G. J.

placed among others of a normal character is quite out of place, and those intending to plant should be fully alive to this small but important point. Generally speaking, weeping trees are not so vigorous as normal specimens, but the same soil will grow them very well indeed.

On one of the lawns in the Royal Gardens, Kew, a very fine weeping Holly may be seen, this being known to botanists as *Ilex Aquifolium pendula*; it has the usual deep green coloured foliage. A variegated Holly of pendulous character is known as *I. A. p. tricolor*, the leaves having a combination of three colours. The weeping Elms are distinct and frequently form large specimens; the best are *Ulmus montana pendula* and *U. campestris pendula*.

Among the Birches are to be found the most graceful of all weeping trees, those known as *Betula pendula Youngii* and *B. alba pendula* being exceedingly beautiful. Weeping Beeches, Thorns, Poplars and Plums are also obtainable, while the lovely weeping Roses have so often been described that anything more than mention of them is not needed here.

the rare Wasp Orchis (*Ophrys Trolii*), a variety of *O. apifera*, has been seen on certain occasions on both sides of the river since 1787, when Michael Collinson had three specimens sent him from Clifton, of which one root flowered finely in 1791. "The lip," he says, "is very narrow, yellow and streaked with dark purple, very analogous to the insect it is named after." *Spiranthes autumnalis* and *Neottia*, together with *Epipactis latifolia*, still grow in the district. It must not be forgotten that the West of England is not rich in Orchids like some of the South-Eastern Counties; but of the two dozen kinds found in the whole area of the Bristol coalfields, all but six grow within easy walking distance of the city.

Besides those plants already mentioned, the St. Vincent's Rocks or adjoining limestone ground produce *Aquilegia vulgaris*, *Viola calcarea*, one of Mrs. Gregory's determinations, which when put under cultivation at Kew "could not be prevailed upon to change its characters"; quantities of *V. hirta* in various forms, *Cerastium pumilum*, *Hypericum Androsæmum*, *H. maculatum*, *H. montanum*, *Geranium sanguineum*, *G. rotundifolium*, and most of the British species of *Geranium*; *Erodium moschatum*, *E. maritimum*, *Hippocrepis comosa* (the Horse-shoe Vetch), *Vicia sylvatica*, *Trigonella purpurascens*, *Medicago maculata* (a beautifully marked species of some persistency about Bristol), *Spiræa Filipendula*,

Pyrus Aria, *P. latifolia*, *P. torminalis*, *Potentilla verna* in abundance, *Sedum Telephium*, *S. rupestre*, *Rubia peregrina* in quantity, *Orobanche Hederæ*, *Allium vineale* and many others.

Last July I was in an old garden on Stapleton Hill, close to Bristol, where *Orobanche Hederæ* was a great pest, notwithstanding that the occupier was frequently pulling it up. In this garden it attacked other plants besides Ivy.

In May and June some of the limestone cliffs and rocks about the Avon are bedecked with the purple blue flowers of *Calamintha Acinos*, which I am inclined to consider distinct from the ordinary smaller-flowered *C. arvensis* Lamk., which is usually annual and has hitherto been thought synonymous. A preliminary note on the subject was published in the *Journal of Botany*, 1915, page 217, pointing out certain characteristics of the Bristol plant, and these are still under consideration. Its early flowering is peculiar. This year expanded blossoms were seen on May 7. On the Continent and, indeed, nowhere beyond Bristol and Somerset have I seen quite the same Calamint; and it is almost as handsome as *C. alpina*, so common in the Alps.

Clifton is also rich in Sedges and Grasses. Among the former may be mentioned the rare *Carex humilis*, which forms a veritable turf in places at the edge of the Downs; and *C. digitata*, which is confined to a much smaller area and

requires more looking for. These are both early Sedges, and usually the short curved flowering spikes of the former have vanished by May 1, when the fruit is often quite difficult to find. Of Grasses, the most interesting and uncommon are *Bromus madritensis*, *B. erectus*, *Festuca Myuros*, *Triodia*, *Gastridium australe*, *Koeleria gracilis* and *K. britannica*. Very possibly *K. Vallesiana*, recently added to the British flora from Somerset, is awaiting to be discovered in some of the similar broken limestone ground about Bristol. The figure of *Gastridium*, together with those of other local species which illustrate Lowe's "Natural History of British Grasses," was drawn from Bristol specimens.

Space precludes the mention of any Composites, except a beautiful white variety of the Greater Knapweed (*Centaurea Scabiosa*), which Johnson first noticed on his western journey in 1634. The variety remains constant to this day, and the present writer has seen it nowhere else in his wanderings at home or abroad.

Of trees, the banks of the Avon are clothed chiefly with Oak, Ash, Lime, including *Tilia cordata*, Wych Elm, Sycamore, Silver Birch, Hawthorn, Holly, Yew, Whitebeam, Aspen, Hazel, Beech and several planted conifers. In many places the wild Clematis makes great tangled masses about the smaller trees and shrubs.



ENTRANCE TO THE KITCHEN GARDEN AT MUNSTEAD WOOD.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Kitchen Garden.

Autumn and Winter Vegetables.—Most of the Cauliflowers having been planted, also a bed of Brussels Sprouts, continue planting all kinds of Kales, Savoy and Broccoli. Select, if possible, showery weather, and keep the plants well supplied with water until they are re-established. Cauliflowers for autumn use should have a rich piece of ground on which to grow, as their growing season is very short.

Cabbage and Coleworts.—A sowing of a small kind of Cabbage and Colewort should be made for use in winter. Where the ground is dry, the drills must be well soaked with water before sowing the seed. Both should be planted rather thickly, and soil in good heart selected.

Asparagus.—It is not advisable to continue cutting Asparagus after this date, or the crowns will become weak and next year's supply will be small. Give the bed a dressing of salt if not already done, and a quantity of liquid manure will be beneficial.

Peas.—For present sowing, varieties not liable to mildew should be chosen, and Gladstone, Ne Plus Ultra and Autocrat are excellent.

The Flower Garden.

Flowering Shrubs.—Specimens that have finished flowering should be pruned forthwith, especially such plants as Weigelas, Deutzias and some of the Spiræas; while Lilacs are also improved by having some of their old wood removed to the base. Encourage vigorous young shoots by exposing them to all the sun and light possible, and strong flowering growths will be the result.

Brompton Stocks.—Seed may now be sown in the open ground, but it is advisable to purchase it from a reliable source, or the majority of the plants will produce single flowers. When large enough the seedlings should be pricked out in nursery beds, and finally transplanted in a well-drained border or bed.

Plants Under Glass.

Streptosolen Jamesonii.—This is an excellent subject for treating as a standard, and from the batch of cuttings inserted last March a few of the most promising examples should be chosen for this purpose. All side shoots must be pinched back near to the stem, which should be securely tied to a neat stake. Other plants may have their growths pinched to secure an even and well-balanced specimen. Pot on as required, and give the plants a light position.

Chrysanthemums.—These should now be placed in their flowering pots, using a fairly rich compost.

The plants may then be arranged in lines, and after being staked should be made secure to wires or some other support. For a week or two careful watering will be necessary, but at no time must they suffer from dryness at the roots.

Fruit Under Glass.

Strawberries.—It will now be necessary to procure runners if it is desired to force any plants next season. Three-inch pots should be filled with soil and the runners placed upon it. Keep them well supplied with water.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Cheltenham, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Herbs.—All seedlings in the herb garden should be transplanted as soon as they are large enough to handle, allowing sufficient room between the lines for the free use of the Dutch hoe.

Broccoli.—Plant out Broccoli as soon as the plants are of suitable size. Plant, also small batches of early varieties of Cauliflower for succession. These often come in useful when a break in the supply is likely to occur. Walcheren is a very useful variety for summer planting.

Rhubarb.—The crowns intended for forcing should always be selected early in the season, and marked with stakes so that no pulling from these plants will take place during the summer. Remove all flowering stems as soon as they appear.

Potatoes.—Early Potatoes must be frequently stirred between the lines with the hoe or cultivator, and earthed up before the haulm closes in the lines.

General Work.—The hoe should be in daily use among the growing crops. Provide stakes to Peas as they come through the ground, and sow further batches, also of Kidney Beans, Spinach, Lettuce and small salads.

The Flower Garden.

Gladioli.—These must be staked and tied up before they become high enough to receive any damage from the wind. Let the stakes be of the correct height, so that they will not interfere with the free development of the flower-spikes, and keep them as invisible as possible. Where much staking is required in the flower garden, it is a good plan to use green-painted stakes or dyed canes and green raffia or twist.

Wallflowers.—Prick out these as soon as the seedlings are large enough to handle. They may be

planted fairly thickly in nursery lines for the purpose, as it is advisable to transplant them a month or more, when more room is then available, and some of the early vegetable crops have been cleared off the ground. Numerous other seedlings will also need attention in the matter of pricking out. Many of the perennials sown last month are now coming on rapidly, and should not be allowed to remain too long in the seedling boxes.

The Hardy Fruit Garden.

Young Fruit Trees on Walls.—Those that have not yet covered their allotted spaces should have sufficient young shoots laid in for extension. Other growths ought to be pinched at the third or fourth leaf, subsequent growths being pinched at the second leaf. Any further thinning or training required should be carefully attended to, balancing the crop according to the variety and strength of the tree. Watch carefully for aphids, and syringe with Quassia as soon as it is discovered. Trees carrying full crops of fruit must be liberally supplied with liquid manure, and the roots must be especially if the soil is of a light nature.

Woolly Aphis or American Blight.—Guard against the attacks of this pest on the Apple trees, as from now onwards it spreads very rapidly. Check it if possible before it becomes general, by spraying the whole of the trees. Methylated spirit applied with a stiff painter's brush checks it in its early stages. An orchard spray fluid we have recently used also checks the spread of this pest at a time when its development seems most active.

Strawberries.—Provide nets for the Strawberry beds before the fruits show signs of colour, as the birds often commence to eat these before any colour is apparent, and when once the taste has been acquired, their attentions to the Strawberry quarter are very persistent. If not already provided, clean straw should be laid between the rows to prevent the fruits becoming splashed and gritty.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

A LAND OF RHODODENDRONS

It was our great pleasure to see the Rhododendrons at Bagshot in the early part of June, when they were flowering with the wonderful freedom unsurpassed by any other plant. The Rhododendron has been described as by far the most beautiful of all

evergreen flowering shrubs ever introduced. It is saying much, but those who have seen a good collection at flowering-time will not disagree with the high praise that is bestowed upon these flowering shrubs. Viewed from a high point, the vast collection at Bagshot presents a scene of such splendour that it quite baffles description. It is a land of Rhododendrons, broken here and there by undulating ground and large specimen trees, including Copper Beeches, Tulam Trees and many conifers. Seen on a bright sunny day, the gorgeous masses of flowers are captivating in colour and beauty in the extreme, while the air is laden with their delicious odour and there is a perpetual hum of bees on the wing. The scene calls to mind the oft-quoted lines from Xenophon's "Retreat of the Ten Thousand," which are singularly



RHODODENDRONS AT BAGSHOT.

appropriate now that so much prominence is given to Trebizond:

"those bees of Trebizond,
Which from the sunniest flowers that glad
With their pure smile the garden round,
Draw venoms forth that drive men mad!"

The lines refer to the alleged poisonous property of the honey made from *Azalea pontica*, and Xenophon relates how his soldiers became stupefied and delirious as if intoxicated after eating the poisonous honey. We can picture the ancient port of Trebizond on the Black Sea, seated at the foot of a very steep hill and in the midst of woods and gardens, a quiet enough place in times of peace, where *Rhododendrons* and *Azaleas* form the leading vegetation.

But we are digressing; let us return to Bagshot. As most readers are aware, this is the home of the old firm of Messrs. John Waterer and Sons, one of the largest firms in existence. In recent years this time-honoured firm amalgamated with the Wargrave Plant Farm, Limited, and now trade as Messrs. John Waterer, Sons and Crisp, Limited. The new combine is in the happy position of having three important branches, for in addition to the Bagshot nursery there is the nursery at Hare Hatch, Twyford, Berks, where rock alpine plants and hardy herbaceous perennials are grown; and the well-known London establishment in Liverpool Street Arcade, where cut flowers and rock plants from the nurseries are always to be seen.

To return once again to the *Rhododendrons* at Bagshot, it will perhaps be as well to single out some of the varieties for their effectiveness. One of the first to catch the eye is *R. odoratum*, a delightfully scented and dwarf-growing species which is as old as the hills. We have seen it flowering in wild profusion at Wisley, but, sad to relate, it is unknown in most gardens. *R. myrtifolium*, with pretty, delicate rosy flowers, is seen near by, but Waterer's hybridum, though much like it, is rather better in colour. We had always looked upon Sappho as the best of the heavily spotted whites, but Mrs. Russell Sturgis, a clear white with chocolate maroon spots, appealed to us as a more beautiful variety. Other varieties of outstanding merit were George Hardy, with magnificent trusses of white blooms—it is quite the best white to accompany Pink Pearl and Alice; Gomer Waterer, white, slightly blushed, and Ted Waterer, which continue to flower over a very long season, and both have exceptionally strong and healthy foliage. By the way, good foliage and hardiness of constitution are considered most important points in the Bagshot nurseries, and no varieties are sent out unless they possess these important qualities. Joseph Whitworth, a variety with dark purple lake blooms, is evidently a warm favourite, for it is grown in very large quantities. We stopped to measure some of the individual blooms, which were over 4 inches across. In Viscount Powerscourt we have a magnificent red, deeply spotted white. *Fastuosum flore pleno*, a semi-double lilac purple, although not everybody's colour, is certainly the best of its shade. What a handsome trio is seen in the new Donald Waterer, Duchess of Teck and Diphole Pink, all of which received awards of merit from the Royal Horticultural Society recently, and were referred to in our last issue, page 295. Beautiful as they were at Westminster, they looked far better at Bagshot, and the full rose pink tone of Diphole Pink will not easily be forgotten; it has come to stay.



THE NEW RHODODENDRON DIPHOLE PINK.

To *alba elegans* belongs the distinction of being one of the tallest, if not the tallest growing of all *Rhododendrons*. It is particularly well adapted for growing in the background with mauve varieties to the fore. When seen in the evening light the colour effect is most pleasing. Seedling *Rhododendrons* are there in vast stretches almost as far as the eye can see. This is not surprising when we consider that such extremely beautiful and distinguished varieties as Alice, Pink Pearl, Bagshot Ruby, Brilliant, Mrs. E. C. Stirling, Lady Decies and Corona have all been raised in these extensive nurseries.

There are other trees and shrubs besides *Rhododendrons* at Bagshot. Maples and Golden Oaks in brilliant foliage are there in endless quantity. Peat-loving shrubs, like *Kalmias*, *Ledums* and *Ericas*, are naturally quite at home in the soil of Bagshot. Among the choice flowering shrubs of which this firm makes a great feature, we noticed *Berberis*, over ninety species and varieties, including *brevipaniculata*, *acuminata*, *aggregata*, *nepalensis*, *Staphiana* and *verruculosa*; *Berberidopsis corallina*, *Buddleia nivea*, *Carpenteria californica*, *Cedrus atlantica aurea*, *Crinodendron Hookeri*, *Daphnes* (including *Verlottii*), *Davidia involucrata*, *Desfontainea spinosa*, *Drimys Winteri*, *Embothrium coccineum*, *Eucryphia pinnatifolia*, *Exochorda Albertii*, *Fremontia californica*, *Hollies* in great variety (including *Pernyia*, *Fargesii* and others), *Lonicera Mackayii*, *L. nitida*, *Magnolias* (a good collection, including *glauca*, *Lennéi*, *parviflora* and *stellulata*), *Osmanthus Delavayi*, *Philadelphus* (including *purpureo-maculatus*, *Rosace*, *Virginal* and many others), *Piptanthus nepalensis*, *Pittosporum Mayi*, *Silver Queen*, *Rubus* (including *Bambusarum*, *deliciosus*, *Veitchii* and *Giraldianus*), *Robinia Kelseyi*, *Spiræas* in large quantities, *Styrax Obassia*, *Viburnums* (including *Carlesii* in quantity, *Henryi*, *macrocephalum*, *Mariesii* and *rhytidophyllum*, some plants of the latter nearly 6 feet high), *Syringas* in large quantities, *Vitis armata*, *Coignetia*,

Henryana, *Leeoides*, *Thomsonii*, *Thunbergii* and several others, *Veronicas* (a large collection), and *Weigelas* *Dame Blanche*, *Eva Rathke*, *Saturn* and among others, a good yellow seedling.

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

LILY OF THE VALLEY AND "GROUND ASH" (*F. M. Glossop*).—There are two plants popularly known as "Ground Ash," but from your description we take it you are referring to the Goutweed (*Ægopodium Podagraria*), one of the most insidious weed pests of the garden and one of the most difficult to eradicate. At the moment the only thing you can do to discourage it is to pick off every atom of leaf growth as it is produced, than which nothing is so fatal to its existence in positions where more drastic measures are impracticable. Then, in September or October, we advise lifting the whole bed and thoroughly overhauling it. As the weed grows again from every scrap of its root, it would be advisable to make a fresh bed elsewhere for the Lilies. Equally desirable, so as to free the Lily from the weed pest, would be the separation of the plants of the Lily of the Valley to single crowns, making your new bed with the strongest of these. The Lily of the Valley may readily be distinguished from the weed by the bluntish, cartridge-like crowns—the weed has a quite distinct growth—which form near the surface, the root fibres being also distinct and less brittle. The operation is of necessity a tedious one, but you will find the weed so embedded with the matted root growth of the Lily that in no other way, save making a bonfire of the whole, is the pest to be got rid of.

TO ENCOURAGE MOSS GROWTH ON STONE (R. B. M.).—If you treat the stone with a not too thick solution of cow-manure and soot, with which also is incorporated a little "water glass," obtainable at any stores, you will find this will have the desired effect in the course of two or three months. You do not say to what stone you refer, and the above does not apply to such stone as tufa, for example; while all exclusively absorbent stone would be assisted if first saturated two or three times with water. Moisture and shade hasten growth in such cases; sun and excessive drought rather repel it, at any rate for the moment. Should this occur, give a second application a week or two after the first.

TULIPS NOT DOING WELL (Dorset).—The Tulips are suffering from a bad attack of "fire," which is caused by a fungus growth. This does not destroy the bulbs, but it weakens them very much when it is as bad as that on the foliage sent. The bulbs look like those of *Ergaste*, which always seems rather subject to this fire. Remove all bulbs when the foliage has died down, that is, about mid-June, and do not put any Tulips in the same places next season. If you are accurate in saying that the two clumps were dug up in autumn, it is very probable that new roots had formed. Were this so, the wretched and poor look is accounted for. Tulips ought to be lifted as soon as the foliage has become withered in a normal manner, and then dried and stored in a dry place till planting-time in November.

DAPHNE AND ANTENNARIA (J. G.).—The shrubby plant is *Daphne Cneorum*, the other is *Antennaria dioica*. The scrap of *Daphne* sent suggests that the plant has been starved, and probably the position on the rock garden is far too dry and the soil unsuitable. The plant grows well in cool, sandy peat, or this with a third of loam added. It does not object to a fairly sunny spot, provided a generous depth of soil, say, 18 inches, and root moisture during times of drought are assured. These are the more important cultural essentials. It is one of the most beautiful of shrubby alpine, and one upon which you cannot lavish too much care. The other plant is quite tractable, growing freely and soon forming a carpet of growth if given a moderately cool position in rich, sandy loam. In sun-baked positions which are very hot and dry, or where drainage is excessive, progress is much slower. Division of the root in early spring every second year will assist progress.

"FIRE" IN TULIPS (Mrs. E. M., Kent, and Miss E. F., Cheshire).—The Tulips are attacked by the disease known as "fire," caused by the fungus *Botrytis parasitica*. This fungus is a very troublesome one to deal with, for it passes the summer in the form of black resting bodies about the size of a Pea in the soil or about the neck of the bulb. It is encouraged by the presence of organic matter in the soil, and the plants are laid open to its attack by exposure to frosts or cold winds. The best treatment is to collect and burn the affected foliage and search the bulbs carefully for any sign of the resting bodies of the fungus when they are lifted. From what you say concerning the behaviour of other plants in the garden, we should imagine your soil to be lacking in lime, and if this is the case, we should give it in autumn a dressing of about half a bushel of powdered quicklime to the square rod of soil, hoeing it in or digging it in in the autumn digging. The Lilies from Cheshire are in all probability attacked by a similar pest.

TREES AND SHRUBS.

LILAC FLOWERS DROOPING (Egdon).—The cause of the flowers of your Lilac drooping is doubtless that the plant is not very well rooted into the new soil, as transplanting took place so recently as last January. It is improbable that the flowers will droop in the same way another year. A mulch of decayed leaves and manure applied to the ground immediately over the roots would do good. The old flower-heads ought also to be removed as soon as the flowers fade.

PRUNING KERRIA AND CHOISYA (Har).—*Choisya ternata* does not require regular pruning. If, however, it is becoming overgrown, it should be pruned as soon as the spring crop of flowers fade. It must not be pruned after the later flowering period. *Kerria japonica* may have some of the older wood cut out as soon as the flowers fade, but do not upon any account prune it during winter, nor yet after the early part of June, or you will cut away next year's flowering wood.

CHERRY FLOWERS TO NAME (M. O. F.).—The flowers of the Cherry had fallen on arrival, but it appeared to be a form of *P. Avium*, perhaps typical *P. Avium* or maybe a garden form. It is impossible to suggest a good reason for its not fruiting. Perhaps the roots may have penetrated into very wet or poor soil, or it may be that it is very near the wild Cherry, and if such is the case the fruits will never become very large, although they ought to ripen in the same way as the garden Cherries. By digging a deep hole near the tree the condition of the sub-soil could easily be ascertained, and if it is very wet, an attempt might be made to drain it.

ROSE GARDEN.

RUST ON ROSES (Miss G. M. T.).—You should spray at once with some good fungicide, such as Nicotyl Fungicide, to be obtained from Messrs. Voss and Co., Carlton Works, Millwall, London, E.

ROSE LEAF-CURL (T. W.).—There are many conflicting opinions as to the cause of this curling of Rose foliage, but most rosarians believe it is caused by a sawfly. Our common wild Roses may frequently be seen attacked in this way. The sawfly appears in May and June and the

eggs are laid on the leaf. The grey larvæ may be seen when the leaf is unrolled. Try spraying with some good nicotine wash. It is thought that the pest is introduced to the beds in cocoon form, the latter adhering to the roots of the Briars. It is a good plan to well wash the roots of affected plants in the autumn, and remove them to another part of the garden.

LEAF-ROLLER SAWFLY (H. N.).—The Rose is attacked by the leaf-roller sawfly. This pest appears to cause the rolling of the leaf merely through the laying of its eggs, and this being so it frequently happens that the grub, the discovery of which is difficult on account of the similarity of its colouring to that of the under surface of the leaf, is not found when the leaf is unrolled. The treatment which succeeds best is applied in winter, and is the removal of the top 3 inches or 4 inches of soil from about the bases of the affected bushes and trees. In this soil the pest hibernates, and it may thus easily be destroyed. Burning the infected soil is a wise measure, or it may be deeply buried. Spraying with lead arsenate is of some value, though contact washes are quite useless.

THE GREENHOUSE.

CULTURE OF GERBERAS (G. H.).—When Gerberas are raised from seeds a certain number are very liable to die off during their earlier stages, and occasionally an established plant or two will follow suit. As a rule, however, the mortality among established plants is but small. They succeed best in a mixture of loam, leaf-mould and sand, and when kept indoors should be grown in a sunny structure. In winter enough water should be given to keep the soil fairly moist, but an excess must be strictly guarded against. The temperature of the structure in which they are grown should not, even in the depth of winter, be allowed to fall below freezing point. With the return of spring, more water will, of course, be required. As far as our experience extends, strong chemical manures are very injurious to Gerberas in general. Very weak liquid manure and soot water combined may, however, be given during the growing period, that is if the plants in the pots are well furnished with roots. It will be noted that the roots of the Gerbera are of a deep descending nature, with comparatively few fibres, for which reason the plants do better planted out than when confined in pots. *Gerbera Jamesonii* in a narrow border in front of the hothouses at Kew forms quite a feature of that portion of the Gardens during the flowering period. It must be borne in mind that South Africa, whence the Gerberas come, is a land of sunshine, hence they do not require shade, while a free circulation of air is also beneficial.

ADVICE ON AMARYLLIDS (E. B.).—If you have an ordinary garden frame in a sunny spot, it will be better to place your Amaryllids therein for the summer than in the summer-house. Briefly, the treatment of Amaryllids after flowering is, as soon as the blossoms are past, to place them in the warmest part of the greenhouse, keeping them supplied with water and giving them an occasional stimulant. They may be shaded during the very hottest part of the day, but at the same time they enjoy a reasonable amount of sunshine. By August they may be fully exposed to the sun, giving them at the same time plenty of air. As the leaves begin to ripen, which is shown by their turning yellow, less water must be given, and when the bulbs are quite dormant it should be discontinued altogether. During the winter the plants must be kept in the greenhouse, where, if possible, the temperature should not fall below 45°. By February a little water may be given, and the plants will then start into growth. As the leaves and stems develop, an increased amount of water is necessary. If the roots are in good condition, annual repotting is not required. During the winter when in the greenhouse they must not be stood underneath the stage, but should be given a good position thereon. We do not know of any work dealing with their treatment under such conditions as those named by you. Formerly known as Amaryllids, these bulbs are now by botanists included in the genus *Hippeastrum*, but the older name is still in general use.

FRUIT GARDEN.

INJURY TO PEACH LEAVES (Torquay).—The cause of the blister on the leaves of Nectarines and Peaches is the attack of the fungus *Exoascus deformans*. This is most frequent on trees exposed to cold winds and late frosts, but can be kept in check by spraying with Bordeaux mixture or Burgundy mixture in February.

APPLE SHOOTS FOR INSPECTION (E. M. M.).—The Apple shoots have probably been attacked by the Apple-twig cutter, a weevil known scientifically as *Rhynchites cæruleus*. This pest is best dealt with by shaking the boughs over a sheet. It is a small beetle of a bright blue colour.

SILVER-LEAF ON PEACH TREE (G. B.).—The Peach tree is badly attacked by the disease called silver-leaf, caused by the fungus *Stereum purpureum*. It is incurable, and the part attacked should be cut out of the tree beyond the point at which a brown discoloration appears in the wood. If most of the tree is diseased, it would be well to destroy it utterly. Burn it. The fungus fruits on dead branches, and is thus likely to spread to healthy trees if these are left. Attacked branches die in a year or two and rarely or never fruit.

PEAR LEAF-BLISTER (Mrs. M.).—The Pear leaves are badly attacked by the Pear leaf-blister mite. Nicotine spraying might do some good during summer, but the most important measure is spraying with what is called the Oregon wash—lime, salt, soda, sulphur—during the

winter. A recipe for this wash has been given several times in the "Answers to Correspondents" column. The mite spends the winter hiding under the bud scales. This wash is better for the purpose than the ordinary caustic soda spray.

PEARS TO STORE (Captain R. H. Verschöyle).—Our correspondent says he is obliged to pick his fruit before it is fit to gather to save it from birds, and he finds that when stored, the fruit decays instead of ripening. He wishes to know how such fruit can be stored to secure its proper ripening. Our correspondent will have to leave the fruit on the trees until it has completed its growth and is ready for gathering before he can hope to ripen it properly, however carefully it may be stored. Repair herring netting is cheap, as advertised in our pages, will last for years, with care. Why not protect fruit? Home-made scarecrows of many kinds are available and easily made, and are effective in keeping away birds. The best place to store and ripen Pears is a cellar or a cool room on the north side of a house, where the air is not too dry, and where the temperature does not fall below 47° to 50° Fahrenheit. Lay the fruit in single layers on paper (on boards). Do not use hay or straw on which to lay the Pears, or it will communicate its musty flavour to the fruit.

KITCHEN GARDEN.

TO GROW AND BLANCH SEAKALE IN THE OPEN GROUND (K. M.).—Yes; this is an excellent way of growing Seakale, but it is too late to attempt to plant now for this purpose. The root cuttings should be planted early in March in beds of four rows at a distance apart of 15 inches, the same distance separating plant from plant in the row. At the end of the following March the beds should be covered with soil to the depth of 15 inches. A month afterwards the Seakale will have grown through this soil, and thereby become beautifully blanched and pure white. It is a delicious and valuable vegetable at that time of the year.

WIREWORMS IN A POTATO PLOT (B. H.).—Broken up turfy soil is always infested with wireworms, which play havoc with first crops planted, whether of Potatoes or any other vegetables. The best treatment to adopt is to burn such soil before planting, thus destroying the wireworms and the seeds of weeds together. The pest is such a wiry, tough creature that no insecticide can be applied strong enough to kill it without doing serious injury to growing crops. In your case, the best thing you can do is to fork the ground over carefully between the rows of Potatoes, and pick up the wireworms and destroy them. Let this be repeated several times until they are got rid of.

MISCELLANEOUS.

WATER RATS (M. E. L. Milne).—Water rats can be destroyed by shooting, trapping, or by poisoning them. Poisoned food may be placed on the bank of the lake, or bisulphide of carbon may be injected into the holes, carefully closing each hole afterwards. As the chemical is very inflammable, it must not be used near a naked light. Pour it upon pieces of wadding or tow, and poke it into the holes.

SPINACH BEETROOT (J. M. B.).—Cut down the seed-stalks, or the plants will exhaust themselves in bearing seed and will be of little use afterwards. The roots will then throw out more leaves. You had better at the same time sow more seeds; the resulting plants will give you better returns during winter, spring, and early summer than the old plants could do. The plant is sometimes called the "Perpetual Spinach."

HOUSE REFUSE AS MANURE FOR THE FLOWER GARDEN (Lieutenant-Colonel D. C. P.).—All vegetable refuse, such as Potato peelings, Cabbage leaves, &c., as well as tea leaves, when properly rotted down, make excellent manure and add useful substances to the soil; but are worse than useless if applied in a raw state. The way to treat such is to dig a deep trench (2 feet) in the soil of the garden and bury the stuff, well mixing at the same time with its own bulk of soil, and let it remain undisturbed for a year.

WEED KILLER (Weedless).—Hot brine (1lb. salt to 1 gallon of water) may be used as a weed killer, or lime-sulphur (10 gallons water, 20lb. quicklime, 2lb. sulphur, boiled together in an iron vessel and the clear liquid used), or 1oz. carbolic acid in 1 gallon of water. Any of these may be applied with a well-painted water pot. The various proprietary articles are even more effective, if applied according to directions, and they are less trouble to prepare. Moreover, there is great difficulty now in procuring salt for brine.

NAMES OF PLANTS.—F. N.—*Ceanothus Veitchianus*.—*Miss M. R.*—*Cassandra calyculata*.—*Torquay*.—*Clivia miniata*.—*Boris*.—*Claytonia perfoliata*. Although a native of North-West America to Mexico and Cuba, it is naturalised in many parts of Britain. We have seen it in quantity by the sides of Surrey lanes, and it is a common annual weed in many gardens.—*Guelder*.—1, *Claytonia sibirica*; 2, *Luzula maxima*; 3, *Saxifraga trifurcata*; 4, *Silene maritima flore pleno*.—*G. I.*—1, *Tolmeia Menziesii*; 2, *Sempervivum arboreum variegatum*; 3, *Carex brunnea variegata*; 4, *Chlorophytum elatum*.—*E. H.*—1 to 6, apparently *Saxifraga umbrosa*, but cannot identify without leaves; 7, *Myosotis caespitosa*; 8, *Mimulus luteus maculatus*; 9, *Mimulus moschatus*; 10, *Nepeta Mussiniis*; 11, *Helenium Bolanderi*; 12, 13, 15, 16 and 17, seedling forms of *Chrysanthemum coccineum*—they have no distinctive names; 14, *Chrysanthemum maximum*; 18, *Polygonatum multiflorum*.—*Lossiemouth*.—*Scrophularia aquatica*.

THE GARDEN.

No. 2328.—VOL. LXXX.

JULY 1, 1916.

NOTES OF THE WEEK

ON Tuesday, July 11, the National Sweet Pea Society is holding its sixteenth annual show in the Royal Horticultural Society's Hall, Vincent Square, Westminster. The show will be open from 12.30 to 7 p.m. As in former years, a visit to the Sweet Pea trials has been arranged to take place on the day following, full particulars of which may be obtained from the secretary, Mr. H. D. Tigwell, Greenford, Middlesex.

Palms Flowering in Ayrshire.—The congenial climate of the Ayrshire coast is highly favourable to many subjects not commonly seen in the open in Scotland. The Fan Palm, *Trachycarpus excelsus*, is hardy in several districts, but it is not everywhere that it flowers. It blooms well in the noble gardens of the Marquis of Ailsa at Culzean Castle, Ayrshire, where it first came into bloom about 1910, so far as we can ascertain. There are some good specimens of *T. excelsus* at Culzean, where the sheltered gardens afford it a better opportunity of retaining its foliage unscathed than in more wind-swept places.

A Good Late Lilac.—Those who appreciate Lilacs over a long season, either in the garden or for cutting, would do well to make a note of *Philemon*. It is single-flowered, with a thick, closely set panicle of flowers that are very fragrant. In colour the buds are pale claret, opening blue, with a pink reflex.

Plants of Special Interest at Cambridge.—Among plants of special interest that have flowered in the Botanic Garden, Cambridge, during the year ending June are *Acantholimon venustum* Olivieri, a new variety of a charming rock plant; *Tritonia Pottsii*, *T. lineata* and *Watsonia Meriana*, South African plants contributed by Miss Mason; *Eucomis punctata* concolor, a much larger plant than *E. punctata*; *Arisæma conanguineum*, a curious Aroid, native of the Himalayas; *Berberis levis*, one of the new and desirable Chinese species; *Anemone caffra*, rare in cultivation; *Acanthus* species from Abyssinia to be described as new;

Crassula pallida, a fine South African species; *Cattleya superba*, a fine Orchid contributed by Professor James Ward; and *Indigofera pseudotinctoria*, a new species from China.

Genista cinerea.—This is one of the most attractive and desirable of all the *Genistas*, especially as it blooms when the majority of Brooms are over, its long, slender, pendulous branches being now covered with bright yellow flowers, forming quite a graceful object. It is a deciduous shrub from 8 feet to 10 feet high, a native of South-West Europe, especially Spain, where it grows at an altitude of 6,000 feet on the Sierra Nevada, and closely resembles *G. virgata*, but may be distinguished from it by its longer, more slender

branchlets and by its flowers being mostly produced in small lateral clusters instead of racemes

The Normandy Cowslip in Denmark.—Referring to this dainty little plant, figured in a recent issue, Mr. I. S. Rüs, Kvaerkeby, Denmark, says that "the Normandy Cowslip might as well be called the Selandia Cowslip. It is abounding here in the woods in Seland, Denmark. I have crossed it with yellow *Polyanthus Primulas*, and have obtained a splendid lot of improved Cowslips, well adapted for cutting and for the wild garden."

The New Rose Lucy Williams.—For many years rosarians have looked upon Dr. Williams of Harrow-on-the-Hill, a vice-president of the National Rose Society, as one of the best authorities on *Wichuraiana* Roses. His new climbing *Wichuraiana* Rose *Lucy Williams*, of rich rose colour, large and full, is an extremely beautiful garden flower. Moreover, it is very hardy, free flowering, handsome in its glossy foliage, not liable to disease, and, above all, of pleasing fragrance. It reaches a height of 20 feet, and is certain to be in great demand for pergolas and walls. When shown at the last meeting of the Royal Horticultural Society it was unanimously granted an award of merit. It was raised from *Jersey Beauty* crossed with the newer variety *Edward Mawley*.

Strawberry Runners.—It is advisable to renew the beds of Strawberries from time to time, and with this object in view preparations must be made for securing the necessary runners. Each runner should be pegged on a small pot filled with soil until rooted, when they can be severed from the parent plant and the pots plunged in ashes. The plants should be well supplied with water, and transferred to their permanent positions before they become starved. The ground should be dug deeply and given a good dressing of manure several weeks in advance of planting.

** Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.



THE NEW WICHURAIANA ROSE LUCY WILLIAMS. IT IS A CLIMBING VARIETY WITH FRAGRANT ROSE PINK FLOWERS.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Deutzia Wilsonii.—This promises to be one of the most beautiful of the Deutzias, judging by a young plant that has bloomed with me for the first time this spring. It is evidently a strong grower and a very free bloomer. It has been in bloom for about a fortnight, and a large proportion of blooms have still to open. It is considerably in advance of *D. crenata*.—C. E. F., Kent.

Rose Mme. Alfred Carriere.—This grand Rose is once more in flower, and with good treatment will continue to give flowers for months to come. It remains one of the best of the white climbing Roses for a wall, arch, trellis or arbour. It is a free and constant bloomer, giving an abundance of its large white flowers, just tinged with the merest shade of blush at times. I have met with it in many gardens in the three kingdoms, and everywhere the same encomiums were pronounced upon its value and beauty by its owners.—SCOTCH ROSE.

London Pride: A Neglected Flower.—By virtue of the fact that London Pride is so easily grown, its value in the garden is often overlooked. It grows freely in sun or shade, and when mixed with *Aubrietia* makes a delightful edging to a garden path. If London Pride were a new introduction from the Chinese Borderland, it would be hailed with delight, whereas it is now uncared for and usually relegated to an obscure part of the garden. After all, common flowers are usually the most beautiful. London Pride is a native of Ireland, and around Killarney it may be seen by the roadside growing on the tops of old stone walls. Here it is known either as St. Patrick's Cabbage or Fox's Cabbage, while another name by which it is known is None-so-pretty, and this seems far more appropriate to this good-natured plant.—C. Q.

Flora of Kent and Bristol.—The botanical wealth of the Bristol district, referred to in THE GARDEN of June 17, page 299, and in the issue following, throws light on the species of native plants there found. Our primitive flora must always be found most abundantly in districts with the greatest extent of uncultivated land. It may be a service to many London readers of THE GARDEN and others to state that, for botanising, Kent is unsurpassed by any county in England. With an immense area of primitive woodland, it also has everywhere much ground of various kinds never under cultivation. "The Flora of Kent," by Hanbury and Marshall—rather a rare work—gives 1,160 species as Kentish. Rochester recently published a guide to its flora and fauna, which gives 783 as native of its district. This interesting guide was compiled by Mr. Hepworth, an enthusiastic local naturalist, and issued by the Corporation. So little has it been appreciated by the local public that in default of sale, copies may now be had free on written application to Mr. Edwin Harris, Old Curiosity Shop, Eastgate, Rochester. Readily accessible from London, with downs and salt marshes, woodlands and chalk hills, ancient manors and churches everywhere, and the almost unrivalled Cobham Park, Rochester and its district has an interest for the botanist and Nature-lover which few localities can equal. Most of the species referred to in the article in question are to be met with in this district.—HURSTCOT.

"Witch's Broom," on the Willow.—This curious growth, which is caused by the insect *Eriophyes triradiatus*, is, unfortunately, more plentiful this season than ever before. Go where you will in the London area, Willow trees suffering severely from repeated attacks are to be found, and nowhere probably is it more plentiful than in some of the larger parks and on Hampstead Heath, where hardly a tree has escaped. Willow trees that were quite free from the insect last season are now seriously damaged, and two at least of those on which the growths appeared nine years ago have succumbed to the annual attacks. With the exception of the Goat Willow (*Salix Caprea*), most others, both species and hybrids, are attacked, and not only in the metropolitan area, but far into the country as well. Spraying with several kinds of insecticides has done little good, but pruning off and burning all attacked shoots in the autumn has been followed with good results. This is a difficult matter, especially in the case of large trees, but at present is the only known way of keeping the insect in check and is to be recommended.—A. D. WEBSTER.

Perpetual Spinach.—With the present-day scarcity of green vegetables, the note on Perpetual Spinach, issue June 10, page 291, is particularly well timed. The value of this Spinach is ignored by many, yet I consider it one of the most remunerative of all green crops. For the amateur with but a small garden it is much to be commended, as it will yield a continual picking over a lengthened period. My suburban garden is situated on a dry southerly slope, where it is useless to expect the ordinary Spinach to give satisfaction. I, however, am particularly fond of it, and tried as substitutes both the Perpetual Spinach, or Spinach Beet as it is often called, and the New Zealand Spinach (*Tetragonia expansa*). Both are good, but we prefer the flavour of the first named, though this is a point on which, no doubt, differences of opinion would be found. The New Zealand Spinach is, however, so tender that the first frost settles it, whereas pickings from the other may take place all the winter. Early in the spring the plants may be cut over, removing all old leaves. If the soil is then loosened with the hoe and a dressing of some quickly acting concentrated manure given, the plants will grow away freely and yield a good crop of leaves before the spring-sown ones come in. It will be found that a distance of 18 inches between the rows will not be too much.—H. P.

—I have been most interested in the article on the above by Mr. F. R. Castle in THE GARDEN of June 10, page 291, and can heartily endorse his words of praise. It is a vegetable that should be grown by everyone, instead of only by the few who are fond of trying the less common vegetables. Our own soil is of a heavy nature, but this Spinach does equally well on a very sandy soil if the ground is well prepared, and, as Mr. Castle says, it does not run to seed readily. We use it chiefly as a winter and spring vegetable, and for this purpose sow in July or August. We sow in drills 18 inches apart, and plant a row of Lettuce between the rows at the time of sowing to economise space. Our Perpetual Spinach comes into bearing in the late winter and continues till the present time. We shall pull it up shortly. This must not be confounded with Spinach Beet. Both are most useful and long-standing vegetables, but the Spinach Beet gets coarse much sooner and runs to seed a considerable time before the Per-

petual Spinach, though sown about the same time and grown in the same manner.—[We have always regarded Perpetual Spinach and Spinach Beet as one and the same thing. They are certainly sold as such.—ED.]—E. T. ELLIS, Weetwood, Ecclesall, Sheffield.

Useful Household Vegetables versus Exhibition Ones.—I am somewhat severely criticised by Mr. Montague (page 270, issue June 3) who assumes that I do not have my vegetable plots properly trenched and prepared. As a matter of fact, I am very particular on this point, and also study the rotation, for both are necessary to the attainment of good crops. As to the "practical part," which he thinks I have "not yet grasped"—well, I am, of course, only "Anne Amateur," but I have grown vegetables for some forty years, and my aim has ever been to provide a good variety, in constant succession, all the year round, of "useful household vegetables," and (say what gardeners may) this is not possible in a moderate-sized garden if vegetables are grown for exhibition purposes. Also I have (as probably Mr. Montague has not done) superintended the cooking and afterwards observed at the table which kind and size of vegetable is preferred, and it is almost invariably the smaller ones. With regard to his remarks *re* allotments he has visited, I have visited the wives of prizewinning allotment-holders and "could a tale unfold" concerning their opinions on this subject, as follows: "Both they blessed shows!" say I, for one durstn't ask for a bit o' kitchen stuff till after the show, and then all the things be gettin' old, and he wants them e't up all at once to clear the ground." So, though well meant, the show often seems to result in "vanity" as regards the prizewinner and "vexation of spirit" for his wife; and, as I have heard their complaints, I hug myself to think of the many varieties of vegetables I am in the habit of enjoying daily from my non-competitive plots of "useful household vegetables." Nevertheless, I am not too old to learn, and as a thrifty woman who endeavours to follow the Scriptural example and "look well to the ways of my household" I shall be grateful to Mr. Montague if he will tell me how I may obtain more in quantity, in a given time and space, of small, choice vegetables, such as are required, and approved, by the members of my household.—ANNE AMATEUR.

Tulip Failures and Successes.—I was going to begin by saying that I was glad to see that other people's Tulips had suffered especially this season; but that would be an unkind way of expressing my appreciation of the "cold comfort" offered by your correspondent in the interesting article in THE GARDEN of June 3, page 273, on this subject. As he invites others to give their experience, I venture to write. I cannot lay claim to be a "Tulip grower," but I have had Tulips in my garden for many years, and my experience is that where they are planted in borders by themselves they invariably show signs of "spot" after the first season. Where grown among other bulbs, such as Daffodils, or among herbaceous plants, they are distinctly less liable to disease, and in grass almost always immune, even in the worst seasons. This seems to be abundantly borne out by the experience of the writer of "Tulips in the Mounton House Garden" in your issue of the 17th ult., page 298. He apparently always carpets his Tulip beds with Violas, which afford them the

protection they seem to crave. This year I had a bed of Tulips (which were left in the ground all last year) practically destroyed by fungus; but immediately opposite, not 6 feet apart, where a former bed of Tulips had been some years ago and had suffered so much that I had taken up, as I thought, all the bulbs and had planted Daffodils, a few stray Tulips (Clara Butt and Europe) appear each year in perfect health. Also the diseased bulbs were replanted in grass, and come up free from spot year by year. I find much the same with *Lilium candidum*, which suffers here terribly unless coming up through other herbaceous plants. I do not know what the true explanation is, but it seems to me to be either that Tulips object to the sun baking on the soil, or that the other plants receive the fungus spores without injury to themselves and thus act as a shield to the Tulips.

—S. PRENDERGAST.

Dianthus alpinus.—The patch of *Dianthus alpinus* shown in the accompanying illustration measures about 6 feet by 5 feet, with a fair-sized boulder in the middle. I started with one bought plant about twelve or fourteen years ago, and as I am told the patch is an unusually large one, I venture to send details as to the treatment it receives. In April I top-dress it with finely riddled potting soil, right up to the tips of the shoots. As soon as the flowers are over, the dead heads are cut off and another top-dressing of soil and granite chips, about half and half, is applied. In October the third and final top-dressing is given, this time granite chips alone, to keep things warm and dry for the winter. The rockwork is limestone, facing nearly due west, and gets sun on that end all day, and also plenty of wind. The clump in the foreground is *Dianthus cæsius*, about eight years old. I have also had for six years a very good clump of *D. Napoleon III.* which received the same treatment as *D. alpinus*, but rabbits and mice have nearly destroyed it, while leaving the others untouched.—ISABEL A. DENT, Ribston, Yorkshire.

The "Daffodil Year Book."—

The two letters in THE GARDEN of June 17 deal with important issues, and would seem to challenge some explanation from the Council of the Royal Horticultural Society. There are two points which I think very pertinent to the matter at issue, which I understand to be that, owing to depressed times, the Royal Horticultural Society cannot afford to pay for the publication of a "Daffodil Year Book," and I have reason to believe that such decision is influenced by the fact that the "Daffodil Year Book" only caters for a section of the Fellows of the society. Taking this last point first, I find that in Vols. XXXIX. and XL. the amount of space given to Orchids and Daffodils, respectively, is as follows: Vol. XXXIX. (1912-13)—Orchids, photographs, 21; pages, 32; Daffodils, photographs, nil; pages, 13. Vol. XL. (1913-14)—Orchids, photographs, 20; pages, 27; Daffodils, photographs, 4; pages, 16. Taking these two years together, Orchids had approximately 1,000 per cent. more photographs and 100 per cent. more page space devoted to them than the

Daffodils. Is there not something owing to the Daffodil section to square the account between the two sections? With regard to expense, I find that the income of the society and the balance over expenses for the years 1912, 1913, 1914 and 1915 appear to be as follows: 1912—Income, £27,201; balance carried to balance-sheet, £9,104. 1913—Income, £32,668; balance carried to balance-sheet, £8,938. 1914—Income, £32,293; balance carried to balance-sheet, £14,135. 1915—Income, £27,130; balance carried to balance-sheet, £10,536. I would therefore ask, Is it really necessary for a "going concern" like the Royal Horticultural Society to be hoarding up its money by incidentally cutting down the expenses in regard to the legitimate and proper work of the society? We do not want to hand down £ s. d. to posterity, but records of the work done by the society. Daffodil-lovers form no small part of the Fellows, and it would be inter-



A DRIFT OF DIANTHUS IN A READER'S ROCK GARDEN.

esting to know what number of the Fellows grow Orchids and what number grow Daffodils.—C. LEMESLE ADAMS, Pendeford Hall, Wolverhampton.

—The letter of your correspondent "G. C." places the responsibility for the financial aspect of the matter upon its correct basis. The Council, having within its control the three factors dominating the financial result, namely, the cost of production, the number of copies to be printed, and the price of issue, knew beforehand exactly what, at its best, the financial result must be, and yet, with that knowledge, allowed its Secretary to "hope that the book would come within reasonable distance of proving self-supporting," when it was obvious that it could not possibly be so. A leading aspect making financial failure inevitable was the strange miscalculation on the part of the Council as to the number of copies which would be required, and it decided upon a limited number which, having regard to the price charged, made a financial

loss certain. And it need not have been so but for this miscalculation, for it is almost certain—looking at the sales in 1914, when, as the Council tells us, although the number was actually doubled, "only a few copies remain unsold"—that had there been sufficient copies printed in 1913, and the price charged 2s. 6d., or even 2s., instead of 1s. 6d., there would have been no loss whatever on the 1913 issue. I personally applied for two additional copies to give to friends newly interested in the Daffodil, and was met by the answer, "All sold." And, so, in 1913 the Council inaugurated a system of finance which rendered loss inevitable, and, strangely, now turns round and would apply the ill results of its own peculiar financial methods as a reason for suspending the issue of a book which has proved of the greatest value, and which has been specially commended to the Fellows by the Council itself. It is curious to note that in the May volume of the Journal of the society, just issued, there occurs on page cxxxiv. the following: "The 'Daffodil Year Books' of the Society are amongst the most interesting works on Gardening. The first issue (1913) was sold out within a month of publication." More curious still, the Council goes on to say, "The 1916 Edition will be ready in August next." This statement, the expressed decision of the Council, made when the financial results of the previous issues were known and the increase in the cost of production realised, is preceded a little earlier in the same month by the Rev. W. Wilks' announcement that the 1916 edition will *not* be published. One is beginning to wonder what is the real reason for this remarkable *volte face*. On the question of finance, surely a society which has just announced that it has completed a laboratory at Wisley "at a cost approaching £20,000" cannot be seriously concerned by the trifling outlay needed to preserve to us one of the society's most useful publications from the effects of the Council's own financial miscalculations. The effect of the suspension of the "Daffodil Year Book" upon the trade has not, apparently, been considered. We

amateurs who cannot visit the big Daffodil shows have largely relied on the "Daffodil Year Books" to guide us in the matter of the newer varieties in the selections and purchases which we make, and especially must this be so to our friends in Australia and New Zealand. This guide and stimulus to purchasing is to be withheld, and thus another blow to the already hard-hit bulb trade is dealt by the hand of the Council of the Royal Horticultural Society. May I conclude by suggesting to the Council that it is never too late to retrace a step too hastily taken?—F.R.H.S.

FORTHCOMING EVENTS

July 4.—Royal Horticultural Society's Summer Show at Holland House, Kensington (three days).

July 7.—City of London Rose Society's Show at the Cannon Street Hotel, E.C., in aid of the funds of the British Red Cross Society.

July 11.—National Sweet Pea Society's Show at Vincent Square, Westminster.

BORDER CARNATIONS

BY the time these notes appear, the most interesting period of the year for Carnation growers will have arrived. The season has been backward, and that most persistent pest, green fly, has done its best to harass the plants; but, so far as I have seen, the prospects for good quality blooms are quite up to the average. The last few weeks have been employed in tying, disbudding and keeping the plants clean, and where cultivation is done in pots under glass, a gentle stimulant, such as weak liquid cow-manure, can be given with advantage once a week till the colour shows through the calyx. This will improve the flowers and strengthen the grass towards making strong layers. In the open borders, provided these were properly made, no further manuring is necessary; but if weak soot water is available, it should by all means be applied in showery weather, or at any time when the soil is not too dry.

The question of disbudding is one on which experts differ, and a good knowledge of the named varieties is of great assistance in coming to a decision as to how one should set about it. For instance, thin flowers of the Miss Willmott, Maud Allan and Mrs. Henwood type will stand severe disbudding; if for show purposes, only the crown and third bud should be retained. To secure excellent blooms, but not for show, I should leave the crown, third and fourth buds, but these must be clear individual buds; all the auxiliaries which cluster close against the base of the calyces of these must be removed as soon as they are large enough to get away. A deft little sideways push with a pencil point or a piece of wire gets rid of them when they are in a quite incipient stage of growth. The medium full flower, of which Bookham White, Mrs. George Marshall and Pasquin are typical, can carry three blooms to a stem on well-grown plants, though two would still be

safer if highest quality is desired with maximum size. Multi-petalled specimens, like Liberté, are often spoiled if too severely disbudded, and, naturally, the tendency to burst is increased if the sap is concentrated into only two or three blooms. Seedlings, again, require quite different treatment; healthy plants will throw up any number of flower-stems up to a dozen or even more. My own custom in dealing with these is to leave three flowers on each stem, as I consider they will then give a very fair example of what the bloom might be like if it subsequently proves good enough to be given a further trial by layering the plant.

The Carnation Show this year is on July 20, and all who desire to start a collection for next season's bloom, or those who intend adding to their existing collections, should make a point of being there; not that I should recommend beginners to make up a list of plants for purchase with the winning blooms as a guide, but the large dealers who show in the professional classes are always willing to give hints to novices as to making selections of plants for particular soils and aspects, when to plant, how to prepare the ground, &c.; while, of course, seeing the flowers themselves in their prime glory is a strong incentive for the amateur to do his best with his own bit of ground or his own greenhouse.

I think every Carnation lover should have a corner of his garden or a border edging devoted to Pinks. The other day I went over to Mr. Douglas' nursery at Bookham, to have a look at these old favourites while in flower. This eminent grower has recently added largely to the well-known varieties that have so long done service with the public, and I often wonder why the "old stagers" have so tenaciously kept their pride of place—Mrs. Sinkins especially. I have never seen a perfect flower of this variety; every calyx seems destined to burst, so that the petals flop about in the wind and the bloom is spoilt and gone long before the snowy whiteness is tainted

with decay. Both Albino and White Queen I consider are great improvements among the whites, but the coloured flowers ought to be much better known than they seem to be. The laced forms particularly appeal to me, and among them I should choose Aviator (a very striking flower), Bookham Gem (one of the very best), Border Chief, Hercules, Jean Douglas (fine salmon with darker lacing and excellent dwarf habit), J. L. Gibson (very beautiful and profuse bloomer), Princess Mary and The Rajah. Among the newer sorts, General Joffre and Charm are particularly good, and a new

seedling provisionally named Radiant is perhaps the most charming laced Pink ever produced. A grand self-coloured one called Jasper has a flower as big as a Carnation, the colour something between heliotrope and rose, which shows up most beautifully in artificial light. All these sorts do well either on rockwork or the open border, and will give delight to all who grow them. J. L. GIBSON.

CONSERVING HUMUS

It is very important to conserve all possible humus in the form of garden rubbish this summer to meet the scarcity of stable manure next winter. Lawn mowings should have first attention. Instead of throwing them on to the heap of hard rubbish to be burnt, as many gardeners do, for they consider them of little value, they should be emptied into a pit by themselves. Despite all that is said to the contrary, I find lawn mowings a most valuable manure; they supply very valuable humus to the soil, which is alike valuable for binding sandy soils together or for breaking up clayey soils. Experiments with mowings show that it is better to shoot them each week into the pit and let them heat up naturally. This will take several days, and the heap will decrease in bulk by at least one-half, if not more. Some gardeners attempt to prevent violent heating by mixing the mowings with leaves and turning them over every day for a week. But this is waste of time and does not give such good manure. I leave the pit of mowings severely alone from the time we start throwing them in until the last lot of mowings are added in the autumn. No stirring or forking up of the manure is done during the summer, for this only makes a smell and does not, I find, improve the manure. Late in the autumn or in the early winter the whole of the contents of the pit are turned out, broken up with a fork and mixed together, and the material used for deep digging of herbaceous and Rose borders prior to planting or replanting these subjects. Lawn mowings after they have been kept a year can be safely forked into the beds of most delicate plants. They are then more valuable than old cow-manure.

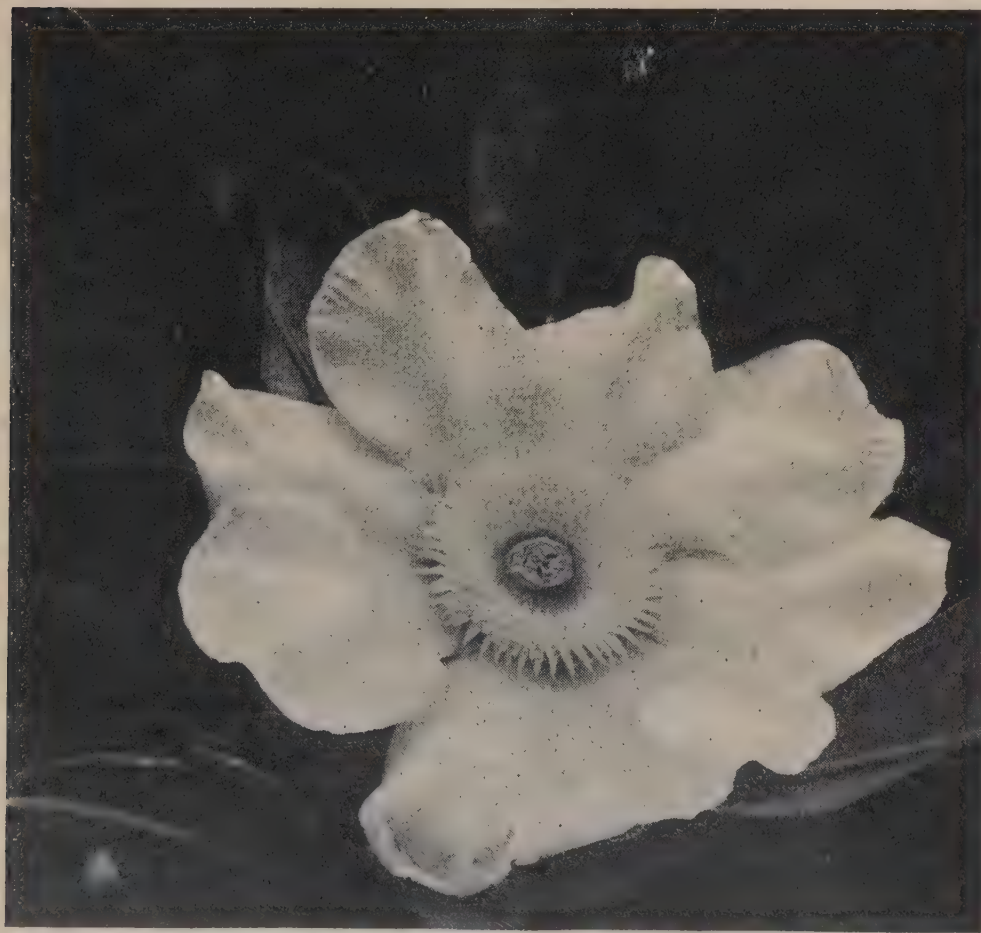
Weetwood, Ecclesall, Sheffield. E. T. ELLIS.

CLUSIA GRANDIFLORA

THIS is one of the most beautiful as well as one of the special plants of the Cambridge Botanic Garden where it has been successfully grown for over twenty years. It is now over 10 feet high, and for several years has produced its very large and beautiful white, rosy-tinted flowers during the early summer.

It is a native of Guiana and is of an epiphytic nature, embracing other trees and often ultimately strangling them by means of its roots. The flowers, which measure from 7 inches to 8 inches across, are waxy in appearance, with a delicate white fringe surrounding the centre, which adds to their beauty. The thick, handsome leaves sometimes measure 18 inches in length and 7½ inches across. Its cultivation is not difficult, providing it has a warm greenhouse with moisture at the roots and in the atmosphere.

It can be propagated from cuttings, although they are often slow in rooting; six months may be necessary to establish a specimen. It is a plant that is not susceptible to insect pests. F. G. PRESTON.



THE RARE EXOTIC CLUSIA GRANDIFLORA.

RAMBLING THOUGHTS ABOUT ROSES

BY EDWARD MAWLEY, V.M.H., PRESIDENT
OF THE NATIONAL ROSE SOCIETY.

The Present Rose Season.—The time of Roses has come and, judging by those in my own garden, the Rose season of 1916 promises to be an unusually good one. Whether it will be as early a season as it at one time promised to be remains to be seen. I only know that a large bush of the wild Dog Rose growing on one side of my Rose garden first showed an open flower on May 28, which is five days earlier than its average date for the previous thirty years and seven days earlier than last year. Since then, however, there has been a good deal of cold and dull weather, which, if it continues, cannot fail to retard the general flowering period, unless there be at once a return to warmer conditions. Up to the time of writing (June 24) there has not been a single seasonably warm day this month, and there have been several slight frosts on the grass. One thing, however, I can say with confidence, and that is I seldom, if ever, remember my Rose plants generally—and I have between 1,000 and 2,000 of them—presenting at this time of year such a promising appearance. Their growth is satisfactory and their foliage singularly free from all fungoid or insect pests. I have, of course, sprayed them for mildew; but even this seemed unnecessary, for there was only here and there the slightest trace of that almost ever-present pest. Then, again, there has been virtually no aphids, while grubs and caterpillars have been equally conspicuous by their absence. When recently visiting a large and open garden on Berkhamsted Common, the Roses, of which there are a large number, presented an even more vigorous and healthy appearance than in my own. I did not see there a speck of mildew or any green-fly or other insect pests. What, however, I am just now most proud of are my dwarf maidens (Roses budded last summer), mostly new varieties, which are all equally strong and present a most promising appearance. Some are on the seedling Briar and other son the Laxa stock.

Early Flowering Roses.—Last year I recommended your Rose-loving readers to plant some of these, as few Roses afterwards are ever quite so much appreciated, owing to their flowering before their larger and more imposing brethren are in bloom. For instance, the Austrian Roses here have been much admired and appreciated, not only because of their being among the first to bloom, but also because of their free flowering and distinct yellow and orange shades of colouring. I need only mention a few of the best: Austrian Copper, Austrian Yellow, Harrisonii and Persian Yellow. The latter was the only Rose I could not grow in my garden at Croydon, and this was said to be on account of its town atmosphere.

Gloire de Chedane-Guinoisseau.—This beautiful crimson Rose, which I, among many other rosarians, both nurserymen and amateurs, have hitherto found such difficulty in flowering, promises this year with me to be even freer flowering than its neighbours. I have a fine dwarf plant of that variety in my Rose garden, which I this year pruned very late and very lightly, simply shortening back its tall, upright shoots about 6 inches. At the

present time there are no fewer than twenty-six trusses of flower-buds on this one plant. Whether this success is due to the method of pruning I adopted or to the exceptional character of the season I, of course cannot say. Last year I budded this variety on a standard stock, and now each shoot is crowned with a flower-bud.

ROSA HUGONIS

THIS beautiful single yellow Rose was introduced into England from Western China by Father Hugh Scallan in 1899. He sent seeds to Kew Gardens, and it appears to have been brought into commerce by Messrs. J. Veitch and Sons in 1908. Besides the attraction of the soft yellow flowers, *R. Hugonis* has very beautiful Acacia-like foliage. The young thorns and stems are bright red. As the stems get older and harder, the thorns tend to disappear. There are both thorns and setæ.

The bush from which the photograph was taken has been growing at the edge of a shrubbery of Roses for some years. It is about 5 feet high. In a hard winter it suffers somewhat severely, and has been cut right down to the ground by frost and has grown up again to the same height. This year it is doing well, and has been in bloom since May 18. Commenting on this variety in the National Rose Society's Rose Annual for 1915, Mr. W. Dallimore gives the height as 8 feet, and mentions that there appear to be two forms of *Hugonis*, one denser and less free flowering than the other. Our plant must be the second variety, for it is difficult to imagine a more free-blooming Rose; but, of course, it does not flower again in the autumn.

In the first number of the American Rose Annual published this year, Dr. W. Van Fleet has an extremely interesting note on *Rosa Hugonis*. He writes of its freedom in seeding and the ease with which it may be hybridised with wild and garden Roses. His seedlings of *Hugonis* crossed with a white variety of *rugosa*, and those crossed with *altaica* (creamy white), have already given him some flowers, and both have the yellow colouring of *Hugonis*. His illustration of this Rose shows long sprays of closely packed flowers looking like spikes of single Hollyhocks. WHITE LADY.

ROSES OF RECENT ORIGINATION

BY THE REV. DAVID R. WILLIAMSON.

AMONG the new Roses that have been recently introduced by eminent rosarians, those are especially conspicuous that have come to us from Waltham Cross; from Newtownards, Belmont and Portadown in Ireland; and from Venissieux-sur-Lyon in France. The special varieties that I have had the great privilege of obtaining direct from that consummate rosarian, M. Pernet-Ducher, are *Constance*, *Totote Gelos* and *Admiral Ward*, also *Sunburst* and *Willowmere*, of which the latter have for the last two years at least been exceedingly popular with British cultivators. *Constance*, which is unquestionably one of the



ROSA HUGONIS, A SINGLE YELLOW ROSE
OF GREAT VALUE FOR HYBRIDISING.

very finest creations of M. Pernet-Ducher, is generally regarded by those who have seen it in its perfect beauty as a greatly improved version of *Rayon d'Or*, which was superbly beautiful in Logan Gardens, in Kirkmaiden, last year. The former is a stronger grower, with even larger and fuller flowers. *Admiral Ward* is distinctive in its colouring, an invaluable addition to the crimson Hybrid Teas. *Totote Gelos* is creamy white in its aspect, with a delicate suffusion of yellow in the refinedly coloured central petals. Those precious Roses from Southern France, though manifestly grown in strong clay in their native regions, succeed admirably in ordinary garden loam, slightly fertilised.

Of recent introductions from the celebrated nurseries of Messrs. William Paul and Sons at Waltham Cross, a great firm that has given us some of the noblest Roses that adorn our gardens, three of the finest are *Queen of Fragrance*, which won the Clay Cup at the National Rose Society's exhibition; the charmingly coloured *Imogen*; and *Titania*, salmon red, shaded with yellow when fully expanded, an invaluable addition to the China varieties, which are now quite as valuable for artistic effect in our gardens as the most intensely coloured Hybrid Teas.

The Irish rosarians have sent out many Roses of the greatest conceivable fascination this year. From Messrs. Alex. Dickson we have the brilliant *Edward Bohane*, G. Amédée Hammond (unique in its colouring), Margaret Dickson Hamill (a splendid acquisition), Mrs. Mackellar (canary yellow, softening into pale primrose) and Mrs. Maud Dawson, none of which, however, I venture to predict, will quite efface from our remembrance the serene beauty of Mrs. Wemyss Quin, and the beautiful Lady Plymouth, sent out last year.

Mr. Hugh Dickson's latest introductions, viz., *Gorgeous* (well worthy of such an expressive name), Mrs. Bertram J. Walker (cerise pink in colour), Mrs. George Gordon, and, above all, Mrs. Hugh Dickson (with marvellous colouring and charming perfume) and Muriel Dickson (a

Hybrid Austrian Briar of the greatest attractiveness) will far more than sustain their great raiser's reputation.

There are not many rosarians who have risen to greater eminence within the last decade than Mr. Samuel McGredy of Portadown in Ireland. He has given us of late years some of his most precious creations, supreme among which are Iona Herdman (of brightest orange complexion, in form and perfect colouring rivalling the great Frenchman's Rayon d'Or), National Emblem (of deep velvety crimson hue), Mrs. F. W. Vanderbilt (which equals in beauty and impressiveness the famous Lyon Rose), and especially Mrs. Franklin Dennison (porcelain white, veiled primrose yellow, of refined characteristics, vigorous in its growth and grandly floriferous).

Lemon Pillar, palest citron in colour, a distinguished emanation from Mr. George Paul's nurseries at Cheshunt; and Autumn Tints and Augustus Hartman, acquisitions from Colchester, are also Roses of great charm and abiding fascination.

THE YELLOW TIBET POPPY

(MECONOPSIS INTEGRIFOLIA)

No one can have read Mr. Wilson's charming account of the masses of this lovely flower in its native wilds without wishing to grow it. Luckily

it can be grown in England with little difficulty, and is well worth the small amount of trouble which is necessary for complete success.

First of all, it is important to secure well-ripened and fresh seed, which will germinate quickly if given slight bottom-heat. The tiny seedlings must be pricked out carefully before they suffer at all from overcrowding. Single plants thrive

well in 2½-inch pots, and are easily handled at this stage. As it is inadvisable to risk the little plants outdoors the first winter, they should be housed in a cold frame or light, airy greenhouse. Frequently all the leaves die off, and nothing is left but a dead-looking little rosette in the middle of the pot; but on the approach of spring, tiny green leaves, densely hairy, push their way up and rapidly attain their full length. The plants must never be over-watered; damp is fatal to them, as the water gathers on the hairy leaves and the crown is apt to rot off. By the end of April the seedlings should be ready for transplanting to their flowering quarters, though by no means all will bloom the first season. In this, as in other points, the plants vary considerably. Some behave as annuals, most as biennials, while others only flower in the third or even fourth year. All, unfortunately, expire when once they have produced seed. It is this monocarpous habit which will prevent the Tibet Poppies from ever becoming really popular garden flowers. A well-drained position is essential to success, so the rock garden will probably offer the most congenial home for the plants. The soil should be a light loam, with a liberal mixture of peat and sand added. The surface should be covered with coarse gravel chips, which will help the drainage and conserve moisture. In the South of England a half-shady position is advisable, but in the North the plants would doubtless appreciate more sunshine.

The huge crinkled flowers of lovely primrose yellow are borne on softly hairy stems sometimes a foot high, sometimes little more than an inch. They may appear at any season—even in winter—but May and June are the usual months. When many are flowering at the same time, the effect is delightful, each bloom lasting for several days, in spite of its delicate appearance. The blooms also last well in water indoors, an unusual virtue in the Poppy tribe. Seed does not seem to ripen well in all parts of England, but, whenever sound capsules are formed, the seed should be carefully collected and sown as soon as ripe to ensure perpetuation of the stock. Old seed germinates irregularly, and a larger proportion will be sterile. NORMAN G. HADDEN



MECONOPSIS INTEGRIFOLIA. (Slightly reduced.)

NOTES FROM THE RIVIERA

BY EDWARD H. WOODALL.

Viburnum Awafuki.—Memory clearly resides in one's nose, it seems to me. The other day, before leaving Nice and its too fierce sunshine, I was walking in my garden when a most subtle and delicious smell greeted me, and I stood to collect my thoughts, for they went back so far as to recall a deliciously scented big bush of this fine evergreen shrub or small tree that stood near the club on the seashore at Yokohama in Japan. Then I remembered I had planted one which had never flowered while I was at Nice, and it had got grown up and almost smothered between a Judas Tree and an excessively aggressive mass of the Macartney Rose (*Rosa bracteata*). There it was at last with big panicles of greenish white and most fragrant flowers, which would certainly have gone unobserved were it not for its fragrance. Does it ever flower in England, I wonder. Though not strictly beautiful in flower, its scent has a peculiar charm that would appeal to many, I think.

Yucca Blossoms.—Again I had the pleasure of seeing the Yucca blossoms wide open to the moonlight, a startling effect to eyes accustomed to see the pendent bells and somewhat flaccid petals that the daylight shows. But the fruit is not abundant, even here, on Yucca gloriosa. Though other forms seed quite freely, I fear the Daylight Saving Bill will have no effect on this lovely nocturnal flower that shines ivory white in the summer moonlight, waiting for the fertilising influence that comes in Europe so rarely. Its beauty would be the more appreciated if seen more frequently.

CLEMATIS VIRGINIANA

This species, popularly known as the Virginian Clematis, is a native of North America, being a common climber in Virginia, Carolina and Canada. It must have been one of the first species of Clematis brought to this country, as 1767 is given as the date of its introduction into Europe. In habit the plants are robust and free in growth, but not so gross and vigorous as *C. montana* and *C. vitalba*, for instance. It attains a height of 12 feet to 15 feet or more, and is thus a very suitable subject for verandahs and pergolas. Perhaps it is seen to the best effect when clothing a group of rough stakes set up in the pleasure grounds in the form of a pyramid 6 feet or 8 feet in height. The leaves are light green in colour, and consist of three coarsely lobed leaflets. The panicles of flowers are very freely produced and give the plant an attractive appearance, although the individual blossoms are slightly less than an inch across. The flowers are white, not exactly a dead white, as there is a creamy shade in it, but hardly sufficient to say the flowers are creamy white. The flowering season is late summer, which, with favourable weather, extends into October.

A. O.

WAYSIDE BLOSSOMS IN ITALY

BY W. HERBERT COX.

As we stroll along our English bypaths and quiet roads we see all kinds of pretty little flowers, and we learn thereby under what circumstances they grow—which like sun, which shade, which prefer dry soil, which moist. If we were able to walk along the waysides and woods of other countries, how much we might learn which would be helpful to us when we work in our gardens at home. Though botanists describe exotic plants with such wealth of detail, they seldom tell us of the plants' surroundings.

Wandering along past the Italian hedgerows, one occasionally sees charming pictures which

grass slopes under the fallen petals of the Blackthorn, and *H. foetidus* along the stony streamsides.

Then come the Anemones. What a riot of colour! The first is *A. hortensis*. How strange that this pretty little thing is never seen in England! But perhaps it is because it will only grow in the rockiest and stoniest places, and here it is attempted in ordinary garden soil. It is charming, rather like *A. fulgens* in shape, magenta coloured, but not ugly, the white variety being charming. Our Wood Anemone, *A. nemorosa*, comes next, and with it *A. apennina* of all shades of blue to white and odd-numbered petals, and our own homely Primroses and Violets. The Poppy



IVORY WHITE YUCCA BLOSSOMS THAT SHINE IN THE SUMMER MOONLIGHT.

might be copied here. I remember, near Florence, seeing a field in which was a vast mass of pale mauve Iris pallida, through which hosts of common red Poppies were blooming. No one can realise the beauty of Tulips until he has seen a field of Tulipa oculus-solis holding up their pretty heads among the sprouting Corn, looking no longer stiff and tame as they do in our parterres.

In Italy we see many more bulbous plants than herbaceous ones (just the reverse from here), so it is mainly with bulbs this article must deal. Bulbs blossom everywhere, from the end of winter till the blazing summer comes. The first to appear is generally the Winter Aconite (*Eranthis hyemalis*), which puts forth its yellow cups and frilled collars quite happily in spite of the fact that the plough has torn it from the ground. It is always in the open, never in woods. By the lakes up in the hills the Christmas Rose (*Helleborus niger*) shows through the snow under the trees. Further South its relations appear, *H. viridis* on

Anemones cannot be depended upon to come at any fixed time, though they are at their best in April in the cornfields under the Olives. The flowers, when wild, seem to prefer to keep their colours distinct, seldom growing mixed. For instance, round Florence, on the Certosa side of the town, they are usually bright scarlet; whereas at Settignano pale blue is prevalent, and about Castello queer yellowy, greeny, brown forms which seldom reach here. The wonderfully marbled leaves of *Arum italicum*, which grow under every hedge and resemble our Lords and Ladies, set off the bright blossoms. With the Anemones come the Bunch Narcissus (*N. tazetta*), early or late according to the locality. Sometimes they are in rich fields, sometimes in solid rock. Later still the Poet's Narcissus (*N. poeticus*) appears on the grassy hillsides. In the mountains the flowers are so thick that from a distance the hills seem to be snow-capped. In the open they are, while just under the bushes are Lilies of the Valley

with the dainty little *Maianthemum bifolium*. Under the *Cistus* bushes, Brooms and Heather are divers Orchids, or in the woods massed with the charming Balm (*Melittis Melissophyllum*); but those I have dealt with on page 240, issue May 20.

The starry *Scilla bifolia* seems to take on the colour of the sea when it grows along the cliffs under the great white Tree Heath (*Erica arborea*), as it does near Ste. Marguerita. A near relative is decidedly common by damp waysides, *Hyacinthus romanus* (very different from the "Roman Hyacinth"), a somewhat dingy thing, caused by the lower blossoms of the long spike having died before the top ones open. Near Sesto I saw a large pasture field—a rare sight in Tuscany—so full of it that there was scarcely room for any grass.

In the cornfields, separated from the roads by hedges of the remarkable Christ's Thorn (*Paliurus aculeatus*), all prickles and queer buckler-shaped fruit, grow the dainty little Lady Tulips (*Tulipa Clusiana*), red and white striped, which are such favourites that they every year become rarer. In the same places and at the same time the bright yellow clumps of *Gagea lutea* shine. A very early blossom is also found in such spots, one of the wondrous Iris family, *Hermodactylus tuberosus*, usually to be found in March. The peasants call it "the Beautiful Widow," for, apart from the green, there is no colour visible but a shiny black. Muscaris, too, are happy, the queer tasselled *M. comosum* and the sweet-scented *M. racemosum* under clumps of handsome golden Thistles with variegated leaves (*Scolymus hispanicus*).

Though the Cornfield Gladiolus (*G. segetum*) is described as "rose coloured," I have never found it thus, but always of the somewhat unpopular magenta shade.

Bulbs are seldom grown on our dry-wall gardens here, yet in Italy they grow on walls and seem perfectly happy peeping out of masses of Sedums, Campanulas, Rusty-back (*Ceterach officinalis*) and Spleenwort (*Asplenium Trichomanes*). The blue Grape Hyacinth peeps forth, the Spider Orchid (*Ophrys aranifera*), Narcissus Tazetta and Anemone stellaria. Frequently the autumn Cyclamen europæum will cover an old wall with its Ivy-like leaves and pink-bossed blossoms from top to bottom, such walls being quite a feature of the Italian landscape.

As summer draws nearer, the Everlasting Pea, *Lathyrus latifolius*, twines up the Oak and Chestnut saplings, showing its bright red flowers. Wandering down from the hills we look regretfully at the divers Broomrapes (*Orobanchè*), noting their beautiful colours and wonderful shapes and pining to introduce them into our gardens, but realise that they are parasites, and that the consequences to other plants would be disastrous. The tall spires of *Ornithogalum pyrenaicum* stand rigid, and the laxer ones of the St. Bernard Lilies (*Anthericum Liliago*) wave in the breeze above a carpet of round blue Globularia.

Summer arrives and we travel northwards.

On the mountain heights, such as Matterone, you may find the spotted leaves and purplish blossoms of the Dog's-tooth Violet (*Erythronium Dens-canis*) among the coarse *Veratrum* leaves.

Near the frontier are many clumps of bright scarlet *Lilium bulbiferum* by the waterfalls, which are overhung with the great saucers and white pyramids of *Saxifraga longifolia*, Primulas, and shimmering patches of *Pinguicula vulgaris*, all blue.

I have not dealt with rarities, but with the plants you may see as you stroll along.

ARCTOTIS GUMBLETONI

IN January of this year I received seeds of this remarkable species from W. Willoughby, Esq., of Blackheath, who had them sent from a friend in South Africa. Unfortunately, two plants only were raised, but these have flowered well, and hopes are entertained that seeds may be produced. This fine species is figured in the *Botanical Magazine*, t. 7796, and was flowered by Mr. Lynch of the Cambridge Botanic Garden in 1901. The plant is considered to be the most beautiful species yet introduced. At Cambridge the plant did not prove easy of cultivation, as Mr. Lynch mentions that



ARCTOTIS GUMBLETONI.

the stems are apt to decay and rot right through. The plants showed the same tendency here so long as they were grown in a warm, moist house. When removed to dry and cool conditions they became strong and healthy. The seeds were sown early in January, and the two plants flowered about the middle of May. It looks to be of annual duration only, and in general appearance resembles the popular *A. grandis*. The flowers are of a brilliant orange, with a dark disc and ring of reddish brown, and are quite 4 inches across. They are borne on naked stems 2 feet in length. The leaves are from 8 inches to 10 inches in length, and are clothed with white tomentum. Should this species prove as amenable to cultivation in the open air as *A. grandis*, it will be a rich addition to the flower border and a brilliant

ornament for the greenhouse. It is a native of Namaqualand. Readers of *THE GARDEN* interested should communicate with Messrs. Sutton and Sons, who are also growing the plant.

Greenwich Park.

T. HAY.

FRUIT BOTTLING WITHOUT SUGAR

THIS method of preserving fruit, though by no means a matter of very modern discovery, is one that is far from widely known. If the value of this branch of preserving was realised by more people, we should hear fewer complaints from growers of gluts of fruit which they are unable to utilise, and less bottled fruits would require to be imported from foreign countries.

It should first of all be realised that this method is only a means to an end, the ultimate aim being to preserve fruit in a wholesome manner so that a supply may be ready to hand at such times when it is impossible to obtain fresh fruit for culinary purposes. Thus, by being able to refer to the stores cupboard, the advantages of such fruit out of season is enjoyed and the utilities of our fruit crops greatly increased, a matter of considerable importance in times such as we are now experiencing, which call for economy. It also enables demands to be met when fruit crops fail or are deficient in quantity.

The economic feature which interests us chiefly in this method of preserving at the present time is that a large immediate outlay on a considerable quantity of sugar is obviated, as the sugar required in cooking fruit can be added to the preserved fruit as and when required for use, and at possibly lower prices than at present ruling.

The principle involved in this preserving is that the bacteria which ripens and ultimately decays fruit is destroyed by sterilisation, and, by preventing the air coming into contact with the fruit, so preserving it for future use.

Preserving without sugar may be divided into two classes—first, that required for dessert purposes, such as Nectarines, Peaches, Apricots, Plums, &c.; and secondly, those fruits chiefly used for general cooking purposes. The principle is the same in either case, the difference between the classes lying in the selection of the fruit, it being essential that the fruit with the best appearance should be set on one side for dessert purposes.

In considering this form of preserving, let me first of all say that it does not necessarily involve any great outlay, and can be employed by those of limited means as much as by those who can afford more elaborate methods.

To make the subject quite clear, we will consider it under the three following headings:

1. Apparatus required.
2. Selection, treatment, and varieties of fruit.
3. Method of working.

1.—Apparatus Required.—Where economy in outlay is not a point of importance, it is more convenient to purchase a good outfit comprising a round or oval boiling tin, with cover, and a number of bottles, complete with stoppers, rubber bands and spring clips. It is possible to obtain a very complete outfit with useful accessories, for prices ranging from 25s. to 50s., according to the elaborateness of the apparatus.

This cost, however, need deter no one from preserving, for extremely good and useful work.

can be done with far simpler and inexpensive articles. Ordinary glass jars can be used, and in place of stoppers, bands and clips, two good substitutes can be utilised for keeping the preserves air-tight. The first of these latter are bladders, bought at any butcher's and cleansed with salt and water. They should be soaked in cold water for an hour before using, so as to render them supple, and after they have been tied over the jars it will be found that they have shrunk while drying and made a tight, air-proof cover.

The second substitute is to reduce some mutton fat, suet, or lard to the consistency of oil, and pour it while hot on top of the steaming hot preserve to a depth of about half an inch. This will in no way affect the flavour or appearance of the preserve, and is quite easily removed when the fruit is required for use. It makes the bottle quite air-tight, and it only requires to be tied down for the sake of cleanliness.

Again, in place of the round or oval boiling tin, any form of boiling utensil can be used, such as a casserole or a saucepan; or even the domestic copper can be used for boiling in.

The proper vacuum preserving jars can be purchased complete at a very reasonable price. There are a considerable number of different makes of jars on the market, all of which are so good that it is not necessary to particularise any special sort.

2. Selection, Treatment, and Varieties of Fruit.—Where it is possible to do so, the fruit should be gathered fresh, at its perfect stage of ripeness. It should be chosen slightly under ripe rather than over ripe. An exception to this rule is the Gooseberry, which may be bottled in the unripe, or green, stage.

Next prepare the fruit as is usually done for cooking, *i.e.*, it should be stalked, washed where necessary, and in any case should be perfectly cleansed, a remark which also applies to the bottles, lids and rings to be used, as these articles should be as thoroughly sterilised as the fruit.

Peaches, Apricots, Green Gages and Plums are the best fruits to preserve for dessert purposes, while fruit of the *Rubus* family, such as Raspberries, Loganberries and Wineberries, are the best for kitchen use. Red, White and Black Currants, Gooseberries, Cherries, Damsons and all stone fruit preserve excellently. Large stone fruit should be cut in half, preferably with a silver knife to prevent discoloration, and the stones removed. Cherries and Damsons are the two fruits that retain their freshness and flavour best; in fact, they can very rarely be detected from fresh fruit months after bottling.

Among the best varieties for use are the following: Peaches Royal George, Dymond and Sea Eagle; Apricots Moorpark and Breda; Gages Old Green Gage and Transparent; Plums Rivers' Early, Victoria and Monarch; Raspberries Superlative Red and Guinea Yellow; Damson Prune and the common Damson; Gooseberries Warrington and Whinham's Industry; Cherries May Duke and Morello; Pears Louise Bonne of Jersey and Josephine de Malines.

Plums for culinary use need not be stoned, it being sufficient to thoroughly wipe and prick them before they are put into the bottles.

3. Method of Working.—When the fruit is cleaned ready for bottling, fill the bottles with it and then fill up the remaining space with cold water. Where proper bottles are used, next place the rubber ring in position, having

previously soaked it in cold water, and then put on the lid or stopper, securing it with a spring clip. (The substitutes are employed after the fruit has been through the sterilising utensil.) The bottles should then be placed in the boiling vessel, which should be filled with cold water to within about 2 inches from the top of the bottles, and then brought to a temperature of about 160° to 180° Fahr., and gently simmered until the fruit is cooked. It greatly improves the appearance of the fruit if it is removed before the skin is broken.

The bottles should next be removed from the boiler to a place where they will not be disturbed and allowed to cool, care being taken to keep them away from draughts. Where oiled fat is used as a substitute for glass stoppers and rings, it should now be poured on and allowed to cool with the preserve. Bladders should also be tied on after boiling and before cooling.

Where vacuum bottles are used, when cooled the lids should be tested by gentle pulling, and if not fixed quite air-tight, a new ring should be inserted and the bottle and contents re-treated in the steriliser.

The fruit is now ready for use at any time for cooking in the same way as fresh fruit, but will require less cooking on account of being partly cooked in the sterilising process. It will keep for a considerable time, but is apt to become slightly acid if kept too long.

The bottled preserve should be stored in a cool, dark room, to efficiently add to its keeping properties. (MRS.) E. J. BECKETT.

A TRAP FOR TURNIP FLY

MANY are now sowing, or have sown, Turnips, and it is probable that the young plants may be attacked by flea-beetles (Turnip fly). These are very small, bluish beetles, that jump nimbly like fleas, eat small holes in the young leaves of the plants from the time that they first come up, and check the growth of the seedlings very considerably.

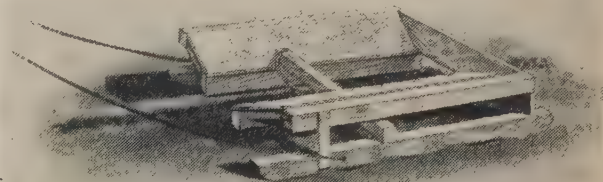
The following simple device, invented some time ago by Professor Lefroy, serves as an effective trap for these beetles. To a frame made of six pieces of half-inch deal 20 inches long, two pieces of thin board (20 inches by 5 inches) are fixed so as to slope outwards and upwards on the sides of the frame. These sloping boards are held apart by a cross bar and an end piece, so as to have 4 inches clear between them at the bottom. The two bottom outer pieces of the frame are made half an inch deeper than the inner pieces, the whole trap riding on the outer pair as a sledge on runners. The ends are rounded off to help this. The sloping boards, the end pieces facing them, and the cross piece between them are greased. From the cross bar between the sloping pieces hangs a loop of stout string, and strings 4 feet long are attached to the front top corners.

If now the trap is drawn down each row of Turnips so that the young plants pass under the cross bar and are brushed by the string loop, the beetles leap up and alight on the sticky boards. There they perish.

If made of deal, this apparatus is so light that a child can draw it along the rows. It is best for two persons to draw the trap and for them

to walk a few feet away on each side so that the beetles are not disturbed until the sticky boards reach them. If two persons are not available, one can work the trap, drawing it with outstretched arm, and walking so that the shadow falls on rows already done.

Satisfactory sticky substances tested include Messrs. Wood and Son's Currant Gall Mite Grease and Smearing Grease (1s. 3d. a tin), and The



AN EFFECTIVE TRAP FOR THE TURNIP FLEA-BEETLES.

S. P. Charges Company (St. Helens) "Morlar" Hop Wash (1s. a tin).

This little device was designed to deal with the hordes of flea-beetles on the Turnips at Wisley. It works so pleasantly and there is such a charm in eradicating the flea-beetles that the foregoing description is published. The method may, no doubt, be adapted to large cultivations by making a number of sledge traps in series, so as to do, say, five rows at once; but the present pattern is intended for garden use.

NOTES ON VEGETABLES

THE month of June has been an exceptionally busy period in the kitchen garden; the crops generally are growing away freely, requiring much attention in the regulation of their growth and attention to the many details necessary to ensure success.

Hoeing is one of the most important of all details in kitchen garden management, not only for the sake of keeping the crops free from weeds, but in stirring the soil on the surface. The growth of all crops is accelerated by the admission of air to the roots. Hoeing, too, is one of the best means of conserving moisture in the soil during dry weather, because it prevents the cracking of the surface soil, and it is through these fissures that the moisture is extracted by the sun. Amateurs would do well to pay attention to this detail in managing their vegetable crops.

Watering such crops as Peas, Beans, Onions, Lettuce, Cauliflowers, &c., should receive much more attention during dry weather than is customary in many gardens. Cultivators of little experience too often entertain the notion that if they commence to water certain crops they must continue to do this regularly, or they will do more harm than good if they cannot continue. This is not correct in practice. One good soaking to the roots of any crop will do much more good, if the after details are properly carried out, than none at all. The salient point to observe is, directly after watering, to apply some mulching material to the surface near the growing crop to prevent the evaporation of moisture from the soil. The best mulching material is

half-decayed stable manure, decayed vegetable refuse, leaves, or even straw, anything that will shade the surface, thus keeping the roots cool and generally preventing the extraction of moisture.

Runner Beans.—Where extra large pods are desired, thin these out to one or two in a cluster, thin out the laterals, water the roots freely, and mulch between the rows with strawy manure.

French Beans.—Continue to make thin sowings of these in drills previously well soaked with water if the weather is dry at the time, as this added moisture hastens germination.

Coleworts.—Make a sowing of these to succeed the Cabbage in the autumn.

Cabbage.—When cutting the heads, leave the stems growing, as they sprout freely, each giving from two to four compact, succulent heads later on which are quite equal to those early cut.

Broccoli, Borecole, Savoys, &c., should be planted as fast as the land becomes vacant, or even between rows of widely planted Potatoes, early Peas, &c. So many of these valuable winter crops are ruined by allowing the plants to remain in the seed-bed before finally putting them out in their permanent quarters. Choose showery weather and small, sturdy plants, and give them reasonable space so that robust yet mature growth is made before the winter comes along.

Endive and Lettuce should be sown at frequent intervals; on the ridges between the Celery trenches is a convenient and economical site. Directly the plants are large enough to handle, thin them to induce stocky growth.

Onions need attention in thinning, the spring-sown batch where larger bulbs are required, though in the case of varieties like James' Keeping or Brown Globe no advantage is gained by thinning at all, as the bulbs grow large enough for ordinary use without this operation. Give occasional dustings of soot, choosing showery weather, and where larger bulbs are wished for, give weak liquid manure.

Turnips should now be sown in quantity where ample supplies are needed. Sow in shallow, well-soaked drills, and cover them afterwards with short grass as a protection against Turnip fly.

Peas.—Make a last sowing of late varieties in well-prepared, moist soil. Attend well to them afterwards in the matter of moisture and mulchings, or mildew may prove troublesome. Continue to earth up and stake all previously sown rows. Keeping them moist at the roots is important for their future welfare.

Radishes should be sown at frequent intervals, well watering the soil first if the weather is dry. Shading the surface until the plants show through the soil will be a great help to success.

Potatoes are variable this season in their growth; some are vigorous, others are exceptionally weak and irregular. Late-planted batches may need some assistance. Where they promise weakly growth, a sprinkling of sulphate of ammonia on each side of the row previous to earthing up will aid growth considerably. Where too many shoots promise, it is well to reduce them to two or three at the most, removing, of course, the weakly haulm.

Parsley for winter use should now be sown on well-prepared soil on a southern slope, if possible, to obtain all the advantages of what sun is possible during the winter and early spring. Thin the seedlings freely to induce a sturdy growth.

Swanmore.

E. MOLYNEUX.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

Figs.—The young growths of Figs should be thinned forthwith, retaining those that are of moderate strength. By removing all the shoots not required for the future welfare of the tree, both the fruit and remaining growths will benefit. Trees bearing a heavy crop must be assisted with liquid manure or some reliable fertiliser.

Peaches and Nectarines.—If mildew appears, the affected parts should be dusted over with flowers of sulphur without delay.

The Kitchen Garden.

Shallots.—The crop may be lifted if the foliage has died down, and after the bulbs have been thoroughly ripened and dried they should be stored in a cool, dry shed. If the weather is wet, they can be placed in a cold frame.

Winter Onions.—These are approaching maturity, and should receive similar treatment to Shallots.

Carrots.—Another sowing of a stump-rooted kind may be made for supplying young roots during late autumn and early winter.

Vegetable Marrows.—During dry weather Marrows must be afforded copious supplies of water. Remove useless shoots and feed the roots with weak liquid manure.

Lettuce.—Continue fortnightly sowings of this desirable salad. Thin out and transplant other seedlings as they become large enough. Select showery weather if possible.

The Flower Garden.

Herbaceous Borders.—These must be gone over from time to time, and any plants that need staking or tying should receive attention without delay. The soil between the plants must be hoed occasionally, and if the weather proves dry, such subjects as Phlox and Delphinium will require watering.

Violets.—The welcome rains that we had in May gave the Violets an excellent start, and now they are growing freely. A watch must be kept for red spider; but if the plants are sprinkled overhead each evening with clear water (more especially after a hot day) and given an occasional dusting of soot, this pest is rarely very troublesome. Keep the ground free from weeds and remove all runners as they appear, which will assist the plants in building up strong crowns. If the soil is at all poor, frequent applications of weak liquid manure will be beneficial.

Hollyhocks.—These will require staking and mulching with manure if the weather is dry. The disease is generally present and sadly detracts from the beauty of these plants. I have tried various remedies, but so far Carmum has given the best results.

Plants Under Glass.

Cinerarias.—If it is desired to perpetuate any special variety of Cineraria, cuttings should be inserted during the present month. They may be placed singly in small pots filled with sandy soil, and for a few days they will require a close frame until roots have formed. The subsequent treatment is similar to that of other seedlings. For producing a late supply of flowers a little seed must be sown now.

Malmaison Carnations.—Now is a suitable time for layering Malmaisons, and a cold frame should be utilised for that purpose. It must be partially filled with a gritty compost, in which the old plants should be arranged. Spread the growths evenly, and after the work is accomplished give the plants a good watering. The lights should be kept more or less closed and the plants shaded from strong sunlight until the layers have formed roots. The foliage may be sprayed over occasionally, and, directly growth begins, more air must be admitted. In a week or two the stem can be severed and the layers potted off.

Calceolarias.—Another sowing can now be made, and the pan containing the seeds should be placed in a frame at the base of a north wall.

Fruit Under Glass.

Late Vines.—The final thinning of late Grapes should be finished as early as possible. Each

berry that is left must have ample space to develop, especially in the centre of the bunches. The pinching and removal of lateral growths should receive attention regularly. During warm weather ample ventilation must be given, and particularly while the berries are stoning.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

Fruit Under Glass.

Grapes.—The crops that are now swelling and approaching the colouring stage should be looked over, removing a few berries where they are likely to be too tight. Do not hesitate to remove a faulty berry, even if by so doing a gap is caused in the bunch, for the space will soon fill up, whereas if left it would have to be removed at a time when swelling had ceased, and the vacancy would always be noticeable. Abnormal-sized berries should also be removed, retaining only those of uniform size. The shears must be carefully handled at this time, as the least touch with the sharp points on the berries will cause them to burst. During the ripening period the roots are very active, and they must on no account suffer from lack of water; but the temperature should not be allowed to rise too high, and where the vineries are exposed to early morning sunshine, a little top air should be put on the last thing at night. Healthy foliage is necessary before good colour and flavour can be obtained, so that every effort should be directed to this end. Pinching of lateral growths should be regularly attended to before they become rank, tying in here and there a shoot where the foliage seems scarce. It may be advisable to lightly fork over the surface of the borders at this time before applying water or liquid manure.

Peaches.—The Peach trees growing on trellises near the glass demand frequent attention in keeping down lateral growths, as these would soon develop strong shoots and divert the sap from the main ones intended for next season's fruiting. Tie the young wood into position as it develops, leaving the swelling fruits fully exposed to the light. Some of the fruits that would otherwise be shaded by the foliage can be brought into an exposed position by the help of a short strip of lath or a wooden label. Reports from various widely scattered districts show that the main crop of Peaches under glass is much below the average this season. With us it is no exception, the crop being a very partial one. Trees in early houses, however, from which we commenced to gather on May 24, are carrying heavy crops, but owing to the absence of sunshine the flavour is deficient. Pot trees from which the fruit has been gathered should now be fully exposed to sun and air in the open. Plunge the pots to the rims to economise watering, and see that the drainage is correct. Frequent applications of liquid manure should also be continued and the foliage kept clean.

Plants Under Glass.

Chrysanthemums.—These should now be staked and placed in position for the summer. The pots ought to be stood on boards, and the stakes secured to a temporary fence so that the plants will be secure against wind. They should be given a position fully exposed to the sun. Earwigs are often troublesome among the Chrysanthemums when outdoors, and these must be trapped in small pots inverted on the top of the stakes and having a tuft of green moss packed in the bottom. If the points of the shoots are attacked by green fly, a dusting of tobacco powder will clear it off.

Malmaison Carnations.—As soon as the blooms are cut, those intended for layering should be stood outdoors for a time to harden the growths. Meantime prepare a cold frame with a light, sandy compost, enough to cover the balls when laid on their sides, and when proceeding to layer, only the strongest and best shoots must be selected, clearing the others away. Give a good watering to settle the soil round the layers, and keep the sashes closed for a time, shading them from bright sunshine. A portion of the plants may be selected for potting on to provide large specimens, as well

as retaining a few without repotting. These latter, if liberally fed and placed in heat early next year, will provide a good cutting of early flowers when Carnation blooms are otherwise scarce. Of course, these plants cannot be again used, as Malmaisons, when once subjected to heat, never again recover their healthy colour and are subject to disease.

Calanthes.—Growth is now rapid in this useful class of Orchid, and the plants should be encouraged by frequent waterings of liquid manure as soon as the roots are seen in quantity over the surface of the compost. Sheep-manure and soot placed in a tub and properly diluted form an excellent liquid manure for this and many other plants of soft growth.

Begonia Gloire de Lorraine.—Plants of this should be provided with neat stakes before the shoots have time to become bent. Thin Bamboo tips suit admirably, being stronger and less conspicuous than wood. Keep the plants growing freely in a moist, warm house and give liquid manure once or twice weekly.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle, N.B.

NEW AND RARE PLANTS

FIRST-CLASS CERTIFICATES.

Tricuspidaria lanceolata.—

From time to time this remarkable Chilean shrub—almost small tree—has been also known as *T. hexapetala*, and even more frequently as *Crinodendron Hookerianum*, under which name it was illustrated many years ago in *THE GARDEN*. Unhappy usually in inland gardens and not content to be coddled in glass houses, it is seen at its best in Ireland, the Isle of Wight and like favoured parts, where it often reaches 12 feet or more high and as much through, being a picture of beauty for a long period when loaded with the drooping reddish crimson flowers, which appear on long peduncles from the axils of the leaves. It was first flowered in this country by Messrs. Veitch about the year 1877, and the wonder is that so unique a subject was not honoured long ago. From the Donard Nursery Company, New-castle, County Down.

Rosa Moyesii.—This unique species was introduced from Western China by Messrs. James Veitch and Sons, and received an award of merit eight years ago. Beautiful in leaf, brilliant in flower and attractive in fruit, it is a plant of high ornament at any season. The flowers are single, 3 inches or so across, and coloured a brilliant red of very exceptional hue. The colour beauty is enhanced by the tuft of golden anthers. This fine plant was admirably shown by Mr. J. C. Allgrove, Middle Green, Langley, Slough.

AWARDS OF MERIT.

Iris germanica Richard II.—A late-flowering Bearded Iris said to be a seedling from Black Prince, and, if so, would, we imagine, be more correctly grouped with the *I. neglecta* varieties.

It is a handsome and distinct sort, with deep purplish violet falls bordered with white; standards bluish white. Valuable for its late flowering. From Mr. Amos Perry, Enfield.

Olearia semi-dentata.—A New Zealand species imported by Major Dorrien-Smith. The florets are palest lilac, disc purplish, leaves dentate, glossy green above, whitish beneath. In the grounds of the Donard Nursery Company, County Down, it has stood two winters without protection, having made a bush 3½ feet high and carrying about fifty of its exceedingly beautiful flower-heads. The flowers emit a pleasing odour. Obviously a good plant for favoured gardens. From the

from the crossing of *Beesiana* and *Bulleyana*, and embracing flame orange, reds of many shades, and delicate lilac on whorled inflorescences with considerable freedom. The plants, lifted and shown from the open, were of quite exceptional vigour. These two were from Messrs. Bees, Limited, Liverpool.

Deutzia crenata magnifica.—The best and purest of this set. The snow white, semi-double flowers in pyramidal trusses are produced with great freedom. From Messrs. George Paul and Son, Cheshunt.

Iris Asia.—A plant of giant stature of the Trojana set and reaching fully 4 feet high. The handsome flowers are in proportion, the outstanding purplish falls being of considerable size. Shown by Mr. G. Yeld, York.

Sphæralcea canescens.—We could not find this plant when taking our notes. Memories of it recall a foot-high sub-shrub, probably of the Mallow tribe, bearing orange-coloured flowers from the leaf-axils. The stems and leaves are whitish. A lovely plant if quite hardy. From Mr. Sydney Morris, Norwich.

The whole of the foregoing were before the Royal Horticultural Society on June 20, when the awards were made.



OLEARIA SEMI-DENTATA. A DELIGHTFUL PLANT FOR FAVOURED GARDENS.

Donard Nursery Company, County Down, Ireland.

Rose Mrs. A. W. Atkinson (Hybrid Tea).—A big, full and solid flower of ivory whiteness and slightly fragrant. Quite a good addition. From Messrs. Chaplin Brothers, Waltham Cross.

Delphinium tanguticum.—An alpine species collected by Mr. Farrer in China. As shown the plant is tufted, about 6 inches high, bearing solitary violet blue, long-spurred flowers from a tuft of leaves akin to a small, close-growing *Ranunculus aconitifolius*.

Primula Hybrids.—The award in this case was granted to a very remarkable strain resulting

your hundred bulbs this summer, replanting in early September. We cannot, however, guarantee it, but should you try it, it would be most interesting to hear next year how it has answered.

HEN AND CHICKEN DAISIES (C. C. F.).—The curious flower-head you send is very interesting, the whole having gone mad, as it were, in the direction of branching, so that very numerous narrow petals are produced as well as lateral branches—the chickens. What precisely causes these freaks is unknown, but they no doubt follow some definite law which has so far eluded man's powers of discovery.

SAXIFRAGA CORSICA (Guelder).—The correct name of this is *S. glaucescens*. It is a South-West European form of our native *S. cernua* and more freely flowered than it. The white flowers are produced on freely branched stems. It belongs to the granular (*Nephrophyllum*) group of the genus, the best-known form of which is the double white-flowered *S. granulata plena*. The other plants you enquire about should be grown in

ANSWERS TO CORRESPONDENTS

SWEET PEAS ATTACKED (G. T.).—Your Sweet Peas have apparently been attacked and almost devoured by slugs. Dust them over with soot and lime, and in the autumn give the garden a dressing of lime.

POPPY BLOOMS PUNCTURED (J. R. D.).—A small bug punctures the stem or the blossom of Poppies at times, and a fly lays its eggs in the flowers. It is worth while trying to check this pest by spraying with a paraffin emulsion just as the buds begin to come up above the foliage.

DOUBLE WHITE NARCISSI NOT FLOWERING (R. H. S.).—The double white *Narcissus* very frequently goes blind, and, as far as we know, this behaviour has never been satisfactorily explained. A cool, deep, and not too heavy a soil, which keeps fairly moist in March and April, is generally said to be the most favourable to its flowering well; so if your garden does not provide these conditions, we advise you to give up trying to grow it. We have lately seen it stated that successful flowering depends on the extra ripening off of the bulbs, so you might try this with

a half sunny situation in your district, and all except the Thymus would do well in gritty or sandy loam. That named prefers a more loamy soil. The Schivereckia may be grown from seeds in rock wall or crevice, or any sunny position in rockwork. Very gritty soil or one freely charged with old mortar suits it well. As a border subject it is less well suited.

INJURY TO CHRYSANTHEMUM LEAVES (S. E. D. T.).—The Chrysanthemum leaves are not attacked by a fungus, but are suffering from something amiss with the watering. This frequently causes the foliage to die, especially under the changed conditions induced by re-potting.

TREES AND SHRUBS.

HOLLY LEAVES FOR EXAMINATION (K. N.).—The marks on the Holly leaves are due to wounds made by their neighbours as they are blown against one another by the wind; not to any insect or fungus attack.

DISEASED ALMOND LEAVES (A. B.).—The Almond is attacked by the same disease as is common on Peaches and Nectarines outdoors. It is caused by a fungus called *Exoascus deformans*, and is always most prevalent when the trees are exposed to checks through cold winds and the like. We think, in addition to picking off the affected foliage and burning it, so far as possible; you would find spraying in February, before the buds burst, with Bordeaux



SECTION OF PART OF
ALMOND LEAF.

Spore-cases on surface
highly magnified.



THE LEAF-CURL FUNGUS.

mixture or Burgundy mixture the best means of protecting the trees from attack another year.

HYDRANGEAS AND SPIRÆAS NOT FLOWERING (Peter Pan).—It is not unusual for Hydrangeas to flower sparsely in some seasons, the cause being the too late growth of the previous year's shoots and the consequent shortness of time to form and ripen flower-buds. You do not say which variety of Spiræa it is that has failed to flower. However, it does not matter much. They are all of so free flowering a nature that with ordinary care in their culture they seldom fail to flower freely.

RED GROWTHS ON LEAVES OF LIME TREES (M. B.).—The peculiar reddish growths on the Lime leaf are due to the presence of mites, which cause irritation to the plant and induce the formation of galls having the curious "nail-like" appearance and the red coloration which these show. The mite is called *Eriophyes tiliae*, and is fairly common. The mites may be seen if the gall be cut open (and magnified) living among the hairs in the interior of the gall. They do little harm; but if it is desired to try to free the tree of them, spraying with Oregon wash, which has been referred to in these columns several times, would no doubt be as effective as anything, as the mites pass the winter in the buds. If attempted, the spraying should be done only while the tree is dormant in winter.

PRUNING RHODODENDRONS (H. I. S.).—It would be advisable to cut your Rhododendrons back to induce them to become bushy at the bottom. As they evidently require fairly severe pruning, we advise you to leave them alone until next April, for, if pruned now, they would not have time to make very good young shoots this year and would probably look ugly all the winter. If, however, any of the bushes only need moderate pruning, such work may be done before the middle of July. The application of cow-manure water two or three times during the growing season will do good, while a good surface-dressing of decayed leaves beneath the bushes will greatly assist the plants. Next April the bushes can be cut back into quite old wood.

THE GREENHOUSE.

ABOUT ORCHIDS (L. F. B.).—*Renanthera* Imschootiana.—The cause of the growths turning black at the top is an excessively moist atmosphere when the temperature is below normal. A dripping of water from the roof may also cause the trouble, but this would only affect one or two plants. The decayed part must be cut off, and in your case it would be best to sever the stem immediately above the new growth. Overwatering, of course, must be guarded against, but this would cause the roots to decay, and not the tops as you suggest. An average temperature of 60° suits this *Renanthera*, but with sun-heat it can go 10° or 20° higher, and no harm will accrue. 2. *Epidendrum prismatocarpum*.—When the new pseudobulbs are fully grown, they must be properly matured by exposing the plant to a little more light and keeping the roots slightly on the dry side. Perhaps you grow it in a warm house. It will succeed in an average temperature of 50° to 55°. This treatment should induce the plants to flower. 3. *Dendrobium Phalenopsis*.—When the flower-scapes appear, arrange the plants in a temperature of 60°, and only give sufficient water to keep the compost just moist. The atmosphere must be on the dry side, and a little top ventilation may be applied during mild weather, if only for an hour or so. This appears to be a case of a low temperature, a too moist atmosphere and lack of ventilation. We are glad to learn your plants are in good condition, and have made a note of your suggestion.

TREATMENT OF PRIMULA OBCONICA (E. M. H.).—If you intend keeping the old plants of *Primula obconica*, all the flowers should now be picked off and the plants repotted. A suitable compost may be formed of two parts loam to one part good leaf-mould, and a fair sprinkling of silver sand. Before repotting, a great deal of the old and exhausted soil may be taken away, but care must be exercised not to carry this to the extreme. By thus reducing the ball of earth it will be possible to put the plant into a pot of the same size as that it was in before. If the same pots are used, care should be taken that they are thoroughly washed and dried before they are again used. The pots must, of course, be effectually drained, and, in potting, the soil should be pressed down moderately firm. In the case of some of the older specimens it is an advantage to put them rather deeper in the soil than they were before. The best place for this *Primula* during the summer is stood on a bed of ashes in a cold frame, so situated that it is shaded from the sun during the hottest part of the day. As the plants grow and the pots get well furnished with roots, an occasional stimulant, either of weak manure water or one of the many plant foods now on the market, will be beneficial. Plenty of air must be given on the frame. We would rather stand the plants outside during the summer than place them in a sunny greenhouse, where they would most likely be attacked by red spider. Many cultivators raise this *Primula* annually from seeds, and do not keep the old plants. It is, however, too late now to sow the seeds for next winter's display.

ROSE GARDEN.

ABNORMAL ROSES (H. L.).—The Roses are becoming proliferant—that is, the stem is growing on through the flower. The occurrence is quite a common one, but what causes it is obscure. Probably a check during the development of the flower is the inciting cause, but whether this is so or not is far from certain.

FRUIT GARDEN.

GOOSEBERRY BUSHES ATTACKED (Pitchford).—Your Gooseberry bushes are attacked by the red spider and by the Gooseberry scale (*Lecanium ribis*). Spraying with paraffin emulsion as soon as the berries are picked will do something towards checking these pests, and after the bushes have gone to rest for the winter and pruning has been done they should be sprayed with caustic wash.

PEST ON YOUNG APPLE TREES (Mercury).—The pests complained of are no longer there, but were in all probability caterpillars, which have been extremely troublesome almost all over the country this season. Several kinds attack trees, and the best thing to do is, as soon as their presence is suspected, to spray with lead arsenate at the rate of 1 lb. to 15 gallons of water. It is too late after the damage is done, the beginning of April being the best time to spray, as a rule.

MORELLO CHERRY TREE ON BACK WALL OF KITCHEN GARDEN DYING (T. Murray).—Your Cherry tree is evidently suffering from the same disease which

so frequently proves fatal to the Plum and the Peach, namely, the silver-leaf disease. So far as we know, there is no remedy for its cure. The best thing you can do is to at once root out the tree and burn it, roots and all, as well as 2 inches or 3 inches of the top soil, adding afterwards a liberal quantity of lime to the soil to purify it before planting another tree in autumn.

PEACH TREES AND STRAWBERRIES GONE WRONG (Peter Pan).—Could we have seen the Peach trees and the conditions under which they are growing, no doubt we could have given a fairly accurate diagnosis of the cause or causes of failure. The failure in the case of the Peach trees is very likely due to more than one cause. If it was due solely to an attack of green fly, then all we have to say is that the green fly should have been destroyed long before it had attained to this strength. It not infrequently happens that an overdose of some insecticide applied to kill the pests in eating the trees is itself responsible for such mischief. Artificial manure applied in too strong a solution has also often been the cause. Let the cause be what it may, the thing to see to now will be to bring the trees round to fair health again as early as possible. The likeliest treatment to bring this about is by doing everything possible to encourage the new growth of shoots by syringing the trees morning and afternoon, and by taking off a few inches of the old surface soil and substituting a new top-dressing of loam and a slight addition of bone-meal, mixing it with it and treading it down firmly. The cause of the glazed appearance of your forced Strawberries was no doubt an attack of red spider.

SILVER-LEAF IN PLUM TREE, AND OTHER QUESTIONS (A. J. S.).—Once a Plum tree is stricken with this disease it may linger on for two or three years, but it will do no good. Better grub it up root and branch and burn together, and plant another tree in autumn, but not in the same place. The soil would be poisoned as well as the tree roots if poison were injected. Cropping a bed 110 feet by 6 feet with winter and spring greens.—The way you are preparing the soil is quite correct. Husband all the opening material you can lay your hands on during the year and store ready for digging in at digging-time; we mean such material as road scrapings, bits of turf cut from roadsides, finely sifted coal-ashes—anything, in fact, that will permanently lighten and aerate such heavy soil. Below we give you a list of what and when to plant, and when to sow others. As to the quantities of each to plant, you will be the best judge. Plant the following now: Leeks, Cauliflower, Broccoli and Lettuce for autumn supply. Early in July plant Brussels Sprouts, midseason, late and spring Broccoli (do not manure the ground for Broccoli), and Sprouting Broccoli for late spring. Of Coleworts (curly greens), plant Sutton's A1 Kale, Cottagers' and Dwarf Green Curled, and dwarf Savoy Cabbage. Also sow the following seeds on August 12: Spinach for winter supply, Turnips, Cabbage for spring use, and Cauliflower and Lettuce. Sow Carrots, Beetroot and Witloof Chicory now; also Parsley and Coleworts. The latter should be planted out early in August 10 inches apart. They will form delicious heads of Cabbage by the end of November. Do not hesitate to ask further questions when in doubt.

MISCELLANEOUS.

BOTTLING PEAS AND BEANS (M. B.).—The above vegetables are generally among the most unsatisfactory to keep good after bottling, though with great care a certain percentage will do so. When treated in the ordinary way, by using chemicals (which we do not advise) this can be overcome, and it will be found that Peas and Beans can be kept perfectly and also made to retain a good colour and fresh appearance. An article on "Fruit Bottling without Sugar" appears on page 324 of this issue.

GOLDFISH NOT THRIVING (E. H. T.).—It is impossible to say why your goldfish are not thriving. Perhaps they were kept in a warm atmosphere before being placed in the tank and have had a chill, or there may have been a considerable quantity of lime in the water, which might have an injurious effect. We do not see that you can do anything more than you are doing at present. It is probable that the fish will soon become acclimatised.

USES FOR TOBACCO ASHES (J. A. G.).—The advice to save the ashes was based on their manurial value, which is really no better than other burnt vegetable substance. As the amount of Tobacco ashes that could be saved would be so small, it is scarcely worth considering. A fair quantity, say, a hundredweight, would be of value to furnish potash to soils in which it might be lacking. Scattered over the surface it would tend to keep off slugs in the same way as soot, while it might be dusted on to plants as an insecticide, but for this purpose it would be greatly inferior to Tobacco powder, as this last contains the full amount of nicotine, which the ashes do not.

AQUILEGIA SEEDLINGS (A. Campbell).—It is only possible from the material you submit to say that considerable colour variety was apparent. The flowers were so completely withered on arrival that no opinion could be formed as to their individual merit or that of the strain. Moreover, 2-inch long tips of the flowering shoots, even though they had reached us perfectly fresh and good, could never afford the least clue as to the garden value of these Columbines, and which, of course, is the all-important point. Of the long-spurred Columbines there are to-day, as for years past, excellent strains in commerce, and you would better judge the value of your own by obtaining seeds of the best of these and cultivating them on equal conditions for comparison.

THE GARDEN.

No. 2329.—VOL. LXXX.

JULY 8, 1916.

NOTES OF THE WEEK

ALTHOUGH the actual balance-sheet of the Royal Horticultural Society's Red Cross Sale is not prepared at the time of going to press, yet we are pleased to record a most successful sale. The total receipts amount to nearly £3,000, and far exceed even the most sanguine expectations. The expenses to be deducted are necessarily heavy, and amount to about £500. A remarkable feature of the sale was the very small attendance; but, fortunately, it was attended by the right people, with the result that the best plants, books and paintings sold well. Mr. Dykes' "The Genus Iris" was sold for £11; Veitch's Catalogues of Plants for 1862 onwards for £3 15s.; Curtis' "Flora Londinensis" for £9; Curtis' "British Entomology" for £7; William Robinson's "Flora and Sylva" (three volumes) for £2 2s.; Miss Willmott's "The Genus Rosa" for £6; and Gerarde's Herbal for £4. Narcissus bulbs contributed by Mr. A. M. Wilson and Paul's Scarlet Climber Rose sold remarkably well. Sir George Holford's magnificent specimen Orchids realised £275; 50 guineas being given for Brasso-Cattleya The King, and 32 guineas for Cattleya Warscewiczii Loos variety.

Codonopsis ovata.—This little-known plant is now flowering in Sir Frank Crisp's interesting rock garden at Friar Park, Henley-on-Thames. It is in every way a desirable plant the flowers being of a beautiful steely blue—a rare colour quality in alpine flowers. At Friar Park it is sheltered and somewhat shaded by overhanging rocks, conditions which are obviously well adapted to its welfare. It comes from the Western Himalaya and belongs to the Campanula family, as its generic name implies, being derived from "kodon," a bell, and "opsis," resemblance.

Sophora viciifolia.—Among the newer shrubs this is one of the most useful, for it blossoms freely and is at its best after many others are over. Moreover, it is perfectly hardy, and thrives under a variety of conditions. Growing at least 5 feet high, it develops as a fairly open bush with small, light green, pinnate leaves, and bears clusters of white, violet-tinted flowers freely from most of the buds on the younger wood. Planted in the open it forms a shapely bush with little attention to pruning, and pruning is not required in order to obtain a regular supply of flowers.

It must be planted in a permanent position while very small, for large plants are difficult to transplant. Loamy soil suits it.

Hybrid Briar Rose Una.—Of all the June-flowering garden Roses, the variety Una, with Briar-like growth and clusters of large, creamy white flowers, must be regarded as one of the best. Our illustration on page 338 shows a fine plant of it, about 20 feet in height, in the Royal Horticultural Society's Gardens at Wisley, quite close to the new laboratory. Una is a delightful Rose to mingle with Carmine Pillar, and if planted on a raised bank and allowed to run wild it will make an informal but none the less pleasing hedge.

Erigeron B. Ladhams.—This Erigeron, which received the Royal Horticultural Society's award of merit in 1914, is a plant to be desired. Some

Perry's White, which received an award of merit from the Royal Horticultural Society, it is not a pure white, having a suggestion of pink and it is enhanced in beauty by its silvery sheen. Each petal has the characteristic black spot near the centre, and a splash of purple towards the base. Mrs. Marsh is tomato red, freely flaked with white and slightly flaked with black. The colouring of this latter is quite unique.

Rhododendron discolor.—Among the many species of Rhododendron that have been introduced during the present century, several appeal to us as being likely to prove worthy companions for the best of the older introductions, the one under notice being a case in point. It appears as if it will grow into a very large bush, and as an immature plant it commands attention by reason of its sturdy, bushy habit, vigorous shoots and handsome leafage. Its affinity to such species as R. Fortunei and R. decorum is apparent in the large, fragrant, rose-flushed flowers with seven petals, but it blooms later than those species, being at its best about the middle of June. As it is late in commencing growth, it escapes injury by late frosts, and is thus hardier than many of the newer species. As the flowers are borne in large, shapely trusses, it might well be used by the hybridist for crossing with R. catawbiense forms.

A Suggestion for 1917.—The popular way of eating Strawberries is with cream. "Strawberries and cream" is an invitation to conjure with. Take the votes of those present at an ordinary drawing-room afternoon tea-party, "with or without."

The teller would almost certainly

say the "withs" have it. The writer would, however, be in the minority. What he would like would be some good Burgundy. "Strawberries and Burgundy"—how very seldom is the offer made—yet it is "food for the gods," and, moreover, it is the old and very likely the original English way of eating this toothsome fruit. The custom dates, at all events, from the middle of the sixteenth century, when, "for a more delight in eating they dresse them with wine and suger."

*** Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.



CODONOPSIS OVATA IN THE ROCK GARDEN AT FRIAR PARK.

describe the colour as soft pink, but we detect a suggestion of delicate purple in it. Again, we see the unopened flowers described as salmon pink, but orange salmon is, unquestionably, a more accurate description; in fact, they remind us somewhat of the unopened flowers of Erysimum Perovskianum, only more beautiful. Those who possess Erigeron Quakeress and this variety have a pair of floral gems.

Two Good Oriental Poppies.—A packet of seed of Papaver orientale, obtained from a reliable source, nowadays yields such a variety of really good flowers that it is not worth while buying named varieties unless they possess exceptional merits. This distinction may however be safely claimed for the two following varieties

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Another War-Time Vegetable: Broad Bean Pods Cooked as a Separate Vegetable.—Live and learn! I have just been told by a very clever cook that the pods of Broad Beans make quite a good dish of vegetable, of entirely distinct flavour from the Beans. The woolly lining should be scraped off and the outer part well washed; then sliced and cooked like Runner Beans. I am going to try them at the first opportunity, and meantime pass on the information for the benefit of others who may also like to make the experiment.—
ANNE AMATEUR.

Birds and Fruit Nets.—Will you allow me to suggest to the bird-lovers among your readers that during the summer months they should make a point of periodically visiting their fruit nets, and so ensure against such of our little songsters who may have been caught there dying a slow death by hunger and thirst. It is quite a common thing to find the dead body of a bird entangled in the meshes of a Strawberry net, and one does not like to think of the lingering death by which the little thief has atoned for his very natural greediness.—Z.

Pink Lily of the Valley.—On page 305, issue June 24, of THE GARDEN it is surmised that this was "one of the small novelties which probably ninety-nine out of every hundred visitors to the Chelsea Show missed." As I did see it, I was therefore one of the exceptions. I was also consulted about it at Vincent Square at an earlier meeting, and at once supplied its name. The variety is, however, in no sense a "novelty." It is very old, and by reason of its inconstancy to colour has, probably, in the main, vanished from gardens. I have repeatedly had it in collections of hardy plants in the past, and it is included in two hardy plant catalogues now before me, respectively as "rosea" and "rubra." One of the catalogues referred to cannot, though not dated, be less than forty years old; the other was issued in 1885. It is also mentioned by Loudon in "Hortus Britannicus" (1830), the varietal name "rubra" being there employed.—E. H. JENKINS.

—In "Notes of the Week" of your issue of June 24 a paragraph appears *re* pink Lily of the Valley. May I say that I saw a large patch of this plant in the garden of the late Sir John Hibbert at Hampsfield, Grange-over-Sands, at least twelve years ago, and have had it myself ever since then. It is one of those plants, along with Arum proboscideum and other out-of-the-way subjects, one grows to excite the curiosity and interest of visitors to my little garden. I also grow a rather good and free-flowering Lily of the Valley with foliage

bordered with a band of gold. By the way, one seldom reads anything of the pretty crimson berries that often follow in a good season.—T. O. WALKER, *Cranforth, Lancs.*

Wichuraiana Rose Francois Foucard.—This is indeed a glorious pillar Rose. Its early lemon yellow flowers are borne in great profusion right down to the ground. Last year it gave us a pleasant surprise by flowering as well in the autumn as it did in June. I suppose that no development in the Rose has been so much appreciated from the garden point of view as that of the Wichuraianas. They are all so clean in growth and are seldom attacked by mildew and other fungoid pests, even when other varieties around



A GOOD SCREEN AND PILLAR ROSE: FRANCOIS FOUCARD.

them are eaten up with diseases. I have heard it stated that the wild and beautiful species Rosa Wichuraiana is quite immune from attacks of Rose mildew, and I have never seen its shiny foliage attacked by any fungoid disease. The type plant is of creeping habit, with single white flowers and yellow anthers, and it was first discovered in 1860 by Dr. Wichura in Japan.—CLAYHURST.

A White Form of Meconopsis Wallichii.—I have now in flower two plants of Meconopsis Wallichii, of which the flowers are white with a very faint tinge of cream. As I cannot find any reference to the flowers of this species ever being white, I should be glad to know whether any of your readers have observed a similar variation.

The plants were purchased from one of the well-known nursery firms two years ago.—A. B. BRUCE. [We look forward with much interest to replies which readers may send on the subject of white-flowered forms of M. Wallichii. So far as we know, it has not been definitely recorded before.—ED.]

A Toad in the Strawberry Bed.—Having been much annoyed lately by having my Strawberries damaged, I quite thought it was done by mice (not birds, as the bed is securely netted), but to my gardener's great surprise he found that a toad was the culprit, as he caught it in the very act with a piece of the fruit in its mouth. As I have never heard of those reptiles attacking Strawberries, would you kindly, through the medium of your valuable paper, inform me if the occurrence is unusual?—EDGAR HANBURY, *Paxton Hill House, St. Neots.* [We have never before heard of toads eating Strawberries, and shall be interested to hear what readers have to say on the subject.—ED.]

Ridding Lawn of Plantains and Dandelions.—The following method of destroying Plantains, Dandelions, and other deep-rooted weeds in lawns is very successful: One or two drops of strong nitric acid or sulphuric acid (oil of vitriol) are run into the centre of the crown of the weed, and in a short time the leaves of the weed wither away and the plant is no more. A convenient way of dropping the acid on the weed is to put a length of glass tubing in the bottle containing the acid, close the upper end of the tube with the finger, remove the tube from the bottle, and allow the acid to flow on to the weed as desired. The advantages of this method are that only the weed is killed and none of the surrounding turf, and also its convenience in operation.—F. H. G.

Papaver pilosum.—The Summer Time Act appears to have been the means of introducing some owners of gardens to beauties, not hitherto fully realised, by their earlier rising leading them into their gardens when many flowers are at their best, before the sun robs them of their freshness and some of their beauty. Papaver pilosum is not, in the strictest sense of the term, a morning bloomer, but in dry weather its fugacious flowers often drop their petals early in the day, and they are never so beautiful as just after they open in the early morning, when the sun reaches the expanding buds. This was the thought that struck me one morning when I went out to the garden and saw the large flat, salmon-coloured blooms glowing in the sunshine. It is a brilliant perennial Poppy, and the flowers and pilose grey leaves and stems go well together. A word of warning may, however, be given. This is to beware of allowing too many seeds to ripen, or the number of plants will increase in a ratio far beyond the reasonable requirements of the average garden.—S. ARNOTT.

THE ROSES OF JUNE

“The morn is merry June I trow
The rose is budding fain.”
—SIR WALTER SCOTT.

ALL Englishmen and Englishwomen, and still more, perhaps, all English children look upon June as the great month of Roses; and no matter what early or late flowering groups may be introduced into our gardens, June will always stand first in our thoughts as connected with Roses. For in June, when the lovely Dog Rose (*Rosa canina*) decorates the hedges with its sprays and wreaths of exquisite single blush rose blossoms, the countryside becomes a Rose garden, and the tramp along our English high-

on the rock garden the little *Rosa Seraphini*, which has the charming habit of seeding itself around the parent plant, makes bright little patches of rose colour among the grey stones. The *Rugosas* and *Chinas* mentioned among the May-flowering varieties are some of our best garden Roses in June, and the early *Wichuraianas* are usually in flower about the middle of the month. *Alberic Barbier* and *Gardenia* (two excellent yellows), *François Juranville* and *Paul Transon* (coppery pink), and the single deep crimson *Diabolo* are some of the *Wichuraianas* now in bloom. The *Penzance Sweet Briars* and such varieties of Hybrid Briars as *Janet's Pride* (a very strong growing kind) and the lovely creamy *Una* are at their best throughout June.

pruned last April, is now full of bloom; it was spared the hard pruning given to most of the *Polyantha Pompons* because its ruddy foliage at the time was so beautiful a contrast to some *Leedsii Daffodils* growing among it that I could not bring myself to cut it away. The flowering seems to have been in no way affected by this leniency, except in the matter of earliness. Some Tea Roses not far from the protection of a south wall are beginning to show some blossoms. Mrs. Herbert Stevens and the *Pink Maman Cochet* are both in flower; and if this June had been a little more liberal in the matter of sunshine, no doubt a good many more of the Teas and Hybrid Teas would have been out. Usually, the exquisite *Mme. Mélanie Soupert* is quite at its loveliest about the last week in June, and such early varieties as *Lady Battersea*, *Mme. Jules Grolez* and *Dr. Campbell Hall* are distinctly June-flowering varieties, though, like all Hybrid Teas, they persist more or less throughout the summer.

The newer group of *Pernet* Roses began to put forth flowers even in May this year, but they seem to have made very little advance in the last three weeks. Here and there is a bloom of *Rayon d'Or*, of *Arthur R. Goodwin*, and, earliest of this group to flower, *Mme. Edouard Herriot*; but I think they particularly dislike the cold nights and the sunless days that have been their lot of late.

The shadow of the great war seems to be cast over our gardens as well as over our homes. Though many find consolation and fresh courage in tending their flowers, yet June itself has not brought the light-hearted joyousness that was ours in the summer days before the war, those far-off days when

“The Roses made the world so sweet
The Bees, the Birds had such a tune
There was such a light, and such
a heat
And such a joy in June.”
WHITE LADY.

A NEW HARDY HEATH
ERICA AUSTRALIS “MR. ROBERT.”

THE hardy Heaths are now a family of such popularity in gardens that an addition to their number is a matter of wide interest. This new one is a white-flowered variety of *Erica australis*, itself one of the most attractive of the group. I saw a flowering shoot this last spring which came from a plant in the collection of Mr. J. C. Williams at Werrington Park, Launceston. It was discovered on the mountains of Southern Spain, near Algeciras, and introduced to cultivation by his son, the late Lieutenant Robert Williams, in 1912. Lieutenant Williams was one of five brothers, all in His Majesty's fighting forces. He belonged to the 3rd Grenadier Guards, and was killed in the hard fighting near Loos on October 8, 1915. He was an ardent lover of plants, and it took him ten days' hard searching before he found this new variety. As a boy and young man at home he was called “Mr. Robert,” and it is proposed that this Heath, which our gardens will owe to his enthusiasm, shall bear that name.

W. J. BEAN.



MME. ALFRED CARRIERE, A GRAND OLD ROSE FOR CUTTING IN EARLY JUNE.

ways, if only he has eyes to see, may enjoy a lovelier picture than the owner of the most elaborate Rose garden can construct for himself. This year it was on June 8 I noticed the first wild Rose on a bush just outside our garden, a few days earlier than the date Mr. Mawley gives as usual for its first appearance in Hertfordshire; now, on June 21, the wild Roses are at the height of their beauty. Just inside the garden a big bush of *Rosa scabrata*, a variety of *canina* with larger and perhaps somewhat pinker blossoms, is very attractive. Many of the wild Roses of other countries flower with us in June. *Rosa Webbiana*, from the Himalayas, with its pale pink blossoms and delicate, refined foliage; *Rosa Fedschenkoana*, with white flowers looking wonderfully dainty and fragile against the glaucous leaves; and *Rosa Oxyodon Hamatodes*, with light, rosy crimson flowers and soft strawberry-hued shoots, are all flowering in the Rose shrubbery; while

The *Noisettes*, *Mme. Alfred Carrière* (flesh white and very delicately scented), *Alister Stella Gray* (yellow) and the well-known orange-coloured *William Allen Richardson*, all make excellent pillar Roses and begin to flower in June; fortunately, they are more or less perpetual. Other, good June-flowering pillar Roses are to be found among the vigorous Hybrid Teas. Of these, *Florence H. Veitch* (dark crimson) and *Sarah Bernhardt* (light crimson scarlet) are now very effective, clothing their 6-foot posts all the way up with bright and fragrant blossoms. Many of the Multiflora Ramblers are in full bloom by the middle of June. The lovely coppery pink Tea Rambler, the delicate rosy pink *Ariel* with its beautiful ruddy foliage, and many another of our best climbing Roses are at the height of their splendour on Midsummer Day. Among the beds and borders of dwarf varieties, I notice a little round bed of the white *Polyantha Katherine Zeimet*, which was rather lightly

NOTES FROM MYDDELTON HOUSE GARDEN

By E. A. BOWLES, M.A., F.L.S.

OXALIS LASIANDRA is not often seen in English gardens, yet it has so many good qualities that it is a pity it is not more widely grown.

It is quite hardy, although a Mexican plant, and was introduced as long ago as 1840, when it was sent from Berlin to the Edinburgh Botanic Garden. Then again, it does not wander and ramp, nor does it shoot seeds into its neighbours after the manner of so many members of its family; but it is a good, steady, stay-at-home plant that can be reckoned on to appear above ground annually in mid-May and die down with the first severe frosts. Therefore it is a very useful thing to plant among early spring-flowering bulbs, as it takes the stage at the moment they are ready to make their exits. It stands about a foot high, and its leaves alone make it worth growing. They all spring from the root, and stand up stiffly on tall stems, bearing from five to nine leaflets at the top. These leaflets are curiously jointed on round a little cup-like hollow at the top of the stem, reminding one of those of a Lupine. Just at the junction with this cup there is a reddish cushion, a pulvinus as it is called, that gives a pretty touch of colour in contrast with their rich green. It is there for use as well as ornament, though, and is the organ which, by becoming turgid or flaccid, lifts or depresses the leaflets for their day position of an open star, or the closed umbrella effect they assume on dull days and for their nightly rest.

The pedicels of the flowers are also jointed on to little cushions at their base, and are curiously sensitive to light and heat. In the little sketch the left-hand flowers and leaf were drawn first, and in the positions in which they were when I gathered them this morning in the sunshine; the right-hand ones I drew in the positions they had assumed by the time I had finished shading the other two. Now as I write in the evening, flowers, buds and leaflets are all drooping downwards with such a distinct expression of determination that one can surmise from it the plant is

careful to guard against radiation of heat from its surface, by exposing only the cushions of its leaflets and the bases of its woolly sepals, to the zenith. This surely proclaims it a plant



OXALIS LASIANDRA.

*Slightly reduced. From a drawing by
E. A. Bowles.*

fitted for great changes of daily temperature, heat by day and cold by night.

It has certain other curious structures worth noticing, as, for instance, the brilliant orange spot at the tip of each sepal, a family feature in many species of Oxalis, but I have no idea as to what is the meaning of it. It has ten stamens, of which five are twice as long as the others. The filaments of the longer ones are covered with

glandular hairs, whence the plant gets its name of lasiandra, the woolly-stamened, and near their base each one bears a curious little projection, the like of which I do not remember in any other flower, and cannot hazard a use for.

The flowers are coloured bright rosy carmine, which is the most flattering colour term I can think of for them, for it must be confessed they are a trifle bluish and harsh in tone, and must not be placed near pure scarlet. They have white eye and a very prettily striped greenish yellow throat, and are very bright and effective when wide open in the sunshine and rising above the handsome leaves.

The most beautiful bit of colour in the garden just now is provided by a 4-foot-high spike of *Meconopsis latifolia*. Its large, pendent Poppy flowers are a wonderful greenish shade of turquoise or Cambridge blue, and their golden stamens on reddish purple filaments are astonishingly beautiful against such a background, while the finishing touch to the picture is given by a stigma of deepest purple velvet, almost black. This lovely thing rises up out of a colony of good forms of British Ferns,

and when the sunlight catches its bells it stands out from afar as a most lovely beacon that attracts everyone who gets a glimpse of it to steer straight to it for a nearer view. There is also another very good blue plant, but one requiring space, in a form of *Symphytum asperum* that has been grown for many years in the Cambridge Botanic Garden. I have just been admiring the effect of its hundreds of Cambridge blue bells where it has made a sea of green with blue ripples all over it under a big bush of *Buddleia globosa*. The Comfrey had climbed a good way up among the *Buddleia*'s lower branches, and where its azure bells are close beside the rich orange balls of the *Buddleia* the effect is as delightful as any I have seen for a long time.

There is a very pretty rosy pink form of *Geranium pratense* in full blow this week. I am very fond of the soft pink flowers of *G. angulatum*, which appear in the end of May and are now beginning to wane; but this form is more beautiful still. It gains in beauty by possessing the larger and rounder flowers of *pratense*, but is of quite as charming a wild Rose shade of pink as *angulatum*, and the deeper rose veinings of the petals are clear and distinct. It reproduces itself fairly truly from seed if kept isolated, but even then bees interfere, I expect, for a certain number of very pale starch-blue forms appear among the pink ones from time to time.

A fine old bush, almost a tree, of *Rosa scabrata* is just at its best, and is bearing hundreds of its

large, deep pink, single Dog Roses. It is a seedling form of *R. canina*, but its flowers are twice as large as those of the wilding, a fully expanded flower being over 4 inches across and of a warmer and more uniform shade of pink. It is the best single pink Briar Rose I know of to form a large self-supporting specimen in the grass, either on a lawn or in the wild garden. All the attention it requires is the removal of some of the oldest wood now and then to allow the long arching shoots room to develop. Then throughout June they should be covered with the shell-pink flowers, and in autumn and winter, until the birds feast on them, the large hips are very ornamental.

Salvia Grahamii must be my last subject this time, but deserves a meed of praise as it is now covered with the first crop of its flowers, and my oldest bush, with stout, woody stems and branches, is singularly beautiful. It always makes a better show in its first flowering than younger specimens, because it then has fewer and less vigorous leafy shoots, and the flowers are given freer play. It stands a good deal higher than I do and is as wide as high, and just now bears hundreds of its glowing rosy scarlet flowers, generally in pairs.

It has the beautifully designed mechanical arrangement of leaves on the filaments which is best seen in *Salvia patens* of all the Sages. In *patens* you should push a pencil down the throat to cause the anthers to bend out; in *Grahamii* the head of a pin will set them in action perfectly, and they will dart out to dust pollen on the insect visitor's back directly the pin-head presses the levers downwards.

I notice that many of the flowers have holes gnawed through the side by some bee that feloniously steals the honey without going to the front door for it and so collecting and distributing pollen in return for his drink.

[Since the foregoing notes were written we have had the pleasure of visiting this famous garden and seeing the plants which Mr. Bowles describes in his interesting way. *Rosa scabrata*, the single pink Briar Rose referred to, is the most beautiful seedling of *R. canina* we have ever seen. A magnificent weeping standard of *Rosa rugosa repens alba*, with vigorous trailing branches and somewhat starry flowers, brought to mind another single Rose worthy of special attention; but the finest of all the single Roses was seen in a remarkably fine bush of *R. Moyesii*. We were pleased to see so many old-fashioned Roses, like the free flowering crimson *Cramoisie Supérieure*, still one of the most beautiful of Roses; also Maiden's Blush and the shell-pink *Celestial*, two varieties of *R. alba* which for fragrance it would be hard to beat. We were also pleased to see the true Seven Sisters Rose and the true York and Lancaster. The charm of these pretty old names has led to them being rather loosely used, and this may explain why it is that *Félicité et Perpétue* usually passes for one and *Rosa Mundi* for the other.—ED.]

THE TREE MALLOWS

FEW flowers have the fresh, winsome beauty of the Tree Mallows, which make brave masses of colour in the border at this season. *Lavatera trimestris* is one of the most beautiful flowers in the garden of the writer at the present time; but, unfortunately, as a correspondent wrote us some time ago, we see little of them, but they are flowers worth care, creating effective pictures at the cost of sowing a few seeds in early spring. Only two kinds are really of much value in English gardens, although the Mallow family is a large one,

is this wealth of bloom attractive in the garden, but the flowers remain fresh for many days when gathered, buds even expanding; hence we advise those who wish for as much variety as possible in the flowers for cutting to grow this Mallow in quantity for this purpose alone. Sow the seed early in April where the plants are to remain, thinning them out freely, as they make considerable growth in rich, well-manured soil. We enjoy the bold breaks of colouring that this Mallow gives to a border in the kitchen garden, or skirting some shrubbery, the flower colouring thrown into bold relief by the background of foliage, or even among dwarf shrubs. Of course, the *Lavatera* is not a hedge plant in the ordinary acceptance of the term,

but it is very bright and pleasing when the seeds are sown against a railing or dividing line, as the growth is very quick and the flowers are produced over a long season. *Lavatera arborea* (the Sea or Tree Mallow) is not an annual, but a shrubby species of tender growth, and far less useful than the beautiful *L. trimestris*. It is a British plant, having been found wild in the South-West of Ireland and upon the Bass Rock in Scotland, but always near the coast; hence in the coast gardens of our Southern Counties the Tree Mallow is familiar. It must not be forgotten, however, that inland, especially in the Northern Counties, it rarely survives the winter. When grown in rich soil, the Tree Mallow reaches a height of nearly 10 feet, the leaves bold and handsome and the flowers pale purple. Although almost as large as those of *L. trimestris*, they are scarcely so pleasing, because less clear and pure. A garden without *L. trimestris* loses in interest; the pink colouring is delightfully pure, and the flowers appear in rich abundance over a long season.



A FOUR FOOT HIGH SPIKE OF *MECONOPSIS LATIFOLIA*.

THE EDITOR'S TABLE

***Rosa hemisphærica*.**—From Mr. George Prince, Longworth, Berks, we have received cut blooms of this glorious double yellow Rose, which is now so scarce in the gardens of England. There is some doubt about its origin, but there is quite an Eastern look in its drooping sulphur yellow flowers, and it is said to be fairly plentiful in the gardens of Asia Minor, Persia and Armenia, where it may have originated centuries ago.

the various species inhabiting Western Europe, Australia and Central Asia. The two kinds we cherish are *L. trimestris* and *L. arborea*. The former is an annual—that is, seeds sown in spring will produce plants that will flower gaily in the ensuing summer. It comes from the Mediterranean region and was first introduced into this country in 1633. Few annual flowers are so showy and, in a way, graceful as this Mallow, which grows fully 3 feet in height in good soil, the flowers measuring about 3 inches across, and in the type or species bright rose with a blotch of maroon in the centre of the petals, while those of the variety *alba* are pure white—a charming association of pleasing colours. They last from July until the following September. Not only

It is one of those rare plants that the late Canon Ellacombe loved so well, and it was grown by him in the Vicarage garden at Bitton. For many years this Rose was to be seen growing on the front wall of a cottage between Woking and Knap Hill. This particular tree is referred to by Mr. W. J. Bean in "Trees and Shrubs Hardy in the British Isles"; it was the admiration of many rosarians, and for all we know it is still there. *R. hemisphærica* is synonymous with *R. sulphurea*, while the true species, *R. Rapinii*, is generally considered to be the wild type from which the double yellow was derived. It is a fine-weather Rose and one difficult to cultivate in this country, and on that account we are all the more pleased to see the blooms in such good condition.

FRUIT PROSPECTS IN THE NORTH-EAST OF SCOTLAND

IF the saying be true that "a dripping June keeps all things in tune," dwellers in the North-East of Scotland ought to be rewarded with a bountiful harvest from the garden and field. Since the first day of June $7\frac{1}{4}$ inches of rain have fallen, and good King Sol has only showed his smiling face for fifty-six hours.

Fruit trees and bushes of all kinds presented a remarkable appearance when in bloom, but the good prospects have not altogether been realised. Gooseberries, Red and Black Currants, where the latter are not affected by big-bud, are bearing excellent crops. It is time the

AN OLD FARMHOUSE GARDEN

SUMMER FARM, WEST CLANDON.

WHEN Summer Farm came into the possession of its present owner, Mr. Arthur Wood, it was "Summer's" Farm, a name which doubtless enshrined the personality of some long dead farmer. The growth of the fabric is admirably typical of the life-history of a Surrey yeoman's home. Late in the sixteenth century, someone, possibly the mythical Summer, built a cottage which probably covered the space

was remodelled for use as a kitchen and the various adjacent offices were added. It need scarcely be said that Mr. Lutyens left the original building untouched, save for the necessary repairs. The hall and dining-room are exactly as they were except for the removal of modern grates, with which the old openings had been blocked, and for the cleansing of the ceiling beams from a modern plaster ceiling. This was revolution enough, but the results achieved in the garden are even more noticeable. The old farmyard was bordered by a low weather-boarded building containing pigsties and cow stalls. The weather-boarding was stripped away, and the posts now form the piers of a cloistered loggia, the attractiveness of which is clearly seen in our illustrations. The other main feature was the horse watering pond, which consisted of an old brick tank very much dilapidated. This was repaired and now gives hospitality to many water-loving plants.

Mr. Arthur Wood has clothed the bones of his re-created garden with a wealth of growing things. It would have been an easy matter to have swept away the disused barn, granary and cowsheds, and to have made a new and modern garden in their place. But it was a happy idea to retain the old characteristic features of the farmstead, to repair the farm buildings where they needed it, and then lay out the garden to fit in with the original surroundings. By this means an atmosphere of age prevails, and the old farmyard has been converted into a beautiful garden, comprising lawns and flower borders. The pond, at one time useful for its water supply, now makes a charming home for aquatic plants, such as the Water Hawthorn (*Aponogeton distachyon*), the Flowering Rush (*Butomus umbellatus*), Pickerel Weed (*Pontederia cordata*), the Water Buckbean



THE FARMHOUSE AND GARDEN FROM UNDER THE CLOISTERS.

Government made the presence of this pest a notifiable disease; there is scarcely a clean bush in this district. In spite of all protestations, people will not pull up and burn their bushes.

Strawberries and Raspberries are smothered with bloom at the date of writing (June 26). Cherries have set badly, but Plums are promising. Apples, in spite of a great show of bloom, will, comparatively, be a failure, the only exception being the dessert Apple James Grieve. This variety never fails to set in the North. It should be noted by all growers. The size of the fruit would even please "Anne Amateur," and the flavour is first rate.

If warmer conditions prevail soon, the outlook for good fruit crops in the North is by no means bad, but they will be very late in ripening.

J. G. W.

now occupied by the workroom, pantry and hall. Before very long, however, Summer increased in prosperity, and added, perhaps about 1620, what is now the dining-room. His descendants waxed fat on farming and made additions to the south-east corner, consisting of the staircase, and what is now a drawing-room with a bedroom above it. Both these rooms retain well-designed panelling of typical Queen Anne character. Then the farmhouse had peace for nearly two centuries, but peace brought with it slackness and dilapidation, and the farm, with its cowsheds, barn, farmyard and the necessary surroundings presented possibilities, but not much more. Mr. Lutyens, never more skilful than when he is dealing with a vernacular Surrey building, added a music-room, adopting rather the eighteenth than the sixteenth century tradition to inspire its form. At the same time the old farm building

(*Menyanthes trifoliata*), the exquisite white Water Lily (*Nymphaea Marliacea albidia*), *Lysimachia punctata* and the Deciduous Cypress (*Taxodium distichum*) by the water edge. A drinking-trough, still in its accustomed place, is no longer used by horses and cattle, but is surrounded by a wealth of blossom afforded by Anemones, Irises, Lupines and bowers of Roses flowering in wild profusion all through the summer months. The right plants are everywhere given their right places. The low farmyard walls are mainly clothed with Roses of the William Allen Richardson type. Flowering climbers growing over the old farm buildings make one of the most picturesque features of this garden. Among the beautiful flowering and berried shrubs to be found are the Sea Buckthorn (*Hippophaë rhamnoides*) with immense clusters of orange berries in December, the sacred Tree of Heaven (*Ailantus glandulosus*).



THE POND AND GRANARY.

shrubby *Spiræas* and *Lilacs* in great variety, *Catalpa* and *Liquidambar*, *Magnolia Soulangeana*, the *Smoke Tree* or *Venetian Sumach* (*Rhus Cotinus*), *Choisya ternata*, *Abelia triflora* and the *Snowball Tree of China* (*Viburnum plicatum*). The less common shrubs include *Tree Purslane* (*Atriplex Halimus*), *Teucrium fruticans*, *Stephanandra flexuosa* and *S. Tanakæ*, *Clethra alnifolia*, *Indigofera floribunda*, *Hercules' Club* (*Aralia spinosa*), *Osmanthus ilicifolius purpureus*, *Rhamnus Alaternus*, the late blue-flowering *Caryopteris Mastacanthus*, *Gleditschia triacanthos*, *Colutea cruenta* and *Lonicera Ledebouri*, a variety of *L. involucrata*. The beautiful white-flowered *Clematis montana* might well be taken for a native climber, considering the grace and freedom with which it is seen growing over walls and gateway pillars. It also creates a charming effect flowering on the roof of the barn, against a background of fine old *Elms*. An aged *Wistaria*, remnant of the old farmstead, is unsurpassed for beauty and effect growing around the walls of a disused granary. A quick-growing and rampant climber, having the misfortune to bear the name *Polygonum baldschuanicum*, grows wildly over the roof of a large barn, and produces masses of its pink-white flowers in June and again in September.

MERODON EQUESTRIS: DAFFODIL FLY.

THE Board of Agriculture and Fisheries have scheduled *Merodon equestris* as a pest, but they have taken a very long time to gain an appreciable knowledge of its life-history. This subject, which is of national importance, concerns a growing industry, and it is most essential that everyone interested should know the best time and means to check the spread of the pest. The

artisan and the collier are entering the field as cultivators of the *Narcissus*, and local week-end shows find it in successful competition. A wider knowledge becomes daily more necessary.

Whoever grows the *Daffodil* ought to know what a dreadfully destructive, ubiquitous pest the *Merodon fly* really is, and that knowledge ought to spur every individual grower to keep vigil, watch every move and process, hunt it

while upon the wing, and carefully search the bulbs in every operation as they pass through his hands. Once get thoroughly impregnated with the spirit of the chase, it is wonderful how fascinating the hobby becomes. "Terribly exciting," as the old lady said in relating the story of a hive of bees falling from the seat of her governess car. "The escaping bees stung the pony and then myself. I tried to get out, but the pony galloped away, and we all came to grief over a heap of stones."

Several methods for its destruction may be adopted whereby great numbers may be destroyed. Some strange theories are recommended by people without practical experience. Several of our most eminent entomologists are not so fully acquainted with the subject as they might be, and I regret to say that a quantity of their literature is composed of quotations from unauthenticated sources. I wish the readers of this paper to understand that such theoretic suggestions are valueless. Practical experience is here put within your reach. If you accept my methods and put them into practice, you will become expert destroyers of this terrible pest, *Merodon equestris*.

It is now time for lifting *Daffodil* bulbs. Nature's indications are to be seen in the seared leaf and fading foliage. These symptoms indicate the rest period for the *Narcissus*. Some bulbs you will not want to lift, and to afford protection to these from the marauding *Merodon*, run a small hoe or rake rather deeply between the rows of plants and bank up the soil against the *Daffodils* just as you draw it against the *Potatoes*. By so doing the fly is prevented from getting down to the bulb, and as 75 per cent. of the eggs are laid direct on to the bulb, the great benefit will at once be apparent. None is laid above the soil. Other bulbs you will want to lift for sale or replanting.



THE SITE OF AN OLD FARM YARD.

Lifting the Narcissus Bulbs.—In the process of lifting, the raiser must keep a watchful eye and pick out all deformed, faulty, diseased bulbs and those affected by *Fusarium*, as well as those showing signs of *Merodon*. Put such into a basket kept handy for the purpose. The person taking up the bulbs must be on his guard, and watch, search, examine and press every suspicious one. Where liquid exudes or a hole is found or suspicion is aroused, that bulb should go into the basket. The contents of the basket can be re-examined and finally burnt. Generally speaking, there is one hole about a quarter of an inch in diameter if a *Merodon* grub is, or has been, present. There will be a number of bulbs affected by very young larvæ which you will fail to find at this stage, even with the help of a microscope. So do not trouble about these at the moment; another opportunity will present itself. The bulbs are generally put into boxes and housed for drying.

Cleaning Process.—If put into paper bags without drying, *Narcissus* bulbs would mildew and consequently perish. Having been dried they are ready for the cleaning process. In this process every bulb is passed through a pair of hands and overlooked by vigilant eyes, many faulty ones being cast into the "condemned cell." It is advisable to detach the roots; this gives a clear view of the base of the bulb. All dirt and superficial faults are removed, and the bulb develops a beautiful chestnut colour, which, psychologically, is of as much importance in the eyes of the buyer as the tint of a Cochin China egg to a conscientious housewife. During this cleaning process the best possible opportunity is afforded for a more minute examination. The search should be most drastic. The grub having been at work all the time the bulbs have been drying, its presence can be more easily located. The larval breathing holes have become enlarged in most cases and detection is easier. The eye gains experience and symptoms become more conspicuous, but the search must be sustained and all doubtful cases investigated. Larvæ less than one-eighth of an inch may be picked from the base of the bulb by the use of a needle, and by this operation the bulb may be saved. It will be seen how important it is that this search must be systematically maintained if a proper recompense is to be gained.

Sorting and Packing.—The bulb has again rested a few days, but any undiscovered larval grub will have continued its labour of destruction. The sorter as he carefully singles out the ware, flowering and small should maintain most careful search. He needs quick vision and a sensitive thumb and finger. As the bulbs pass through his

hands he should drop the suspicious ones into the special basket. By doing this his work is not delayed, and he thus has opportunity for subsequent examination. The sorting being completed, the packer takes the ware, or marketable bulbs, counts them, and packs them into paper bags or boxes, according to orders received. He needs to exercise great care, because preceding examinations will not have discovered every affected bulb, and it is his employer's credit that is at stake.

The Buyer and the Planter.—The buyer is the most interested party. He finds the cash

or two as a test. If affected by *Merodon*, the bulb will be hollow, and the cavity full of excretions and most obnoxious. When you have got all the affected bulbs together, return them to the nurseryman with a request for their replacement. It is the nurseryman's wish to give satisfaction, and he will undoubtedly do so with pleasure. It pays, but all nurserymen are not gifted with tact. It is amusing to read the excuses some vendors make, and sometimes they are hoist with their own petard. Here is a delectable case in point.

A customer bought a high-priced bulb which did not grow, so he removed the soil and found a pupa in the neck of the bulb. He returned it to the vendor, and received a courteous reply with a promise to replace it in the autumn, adding, by way of excuse, "We ran out of this particular sort and bought a few from Devonshire, and yours was one of them. We would point out to you that our nursery is too far North for the fly to live." "But," the suffering buyer replied, "that is most remarkable, as my garden is 150 miles further North than yours, and yet I am never free from it." Of course, a full stop follows the nurseryman's letter, and I have no clue as to his cogitations. GEORGE STOCKS.



THE BLUE WATER LILY (NYMPHÆA STELLATA, BERLIN VARIETY).

A BLUE WATER LILY

THE blue form of *Nymphæa stellata*, known as the Berlin variety, is beyond doubt one of the most exquisite Water Lilies in cultivation. The clear sky blue flowers are seen to advantage as they rise on slender stems at least 18 inches above the surface of the water. It has one fault only, namely, that it is not hardy, and in this respect it just misses being an indispensable subject for English gardens. In the gardens at Gunnersbury House it has for some years been successfully grown in a little sheltered pool where the temperature of the water is kept about 65° Fahr.

which keeps the trade alive. He desires, and really ought to have, ample satisfaction. He must remember that if he wants a thing done well he must attend to it personally. He should open every package of valuable bulbs and personally make a careful examination, picking out all that are holed or are cracked round the base rim. The latter are affected by *Fusarium*. In handing the stock over to the planter, give the most definite orders for every bulb to be pressed into the soil with thumb and finger, and return into the paper bag any that yield to pressure. Go over these again personally and cut open one

by means of hot-water pipes placed low in the water. From Gunnersbury this blue *Nymphæa* has been sent to Wisley, where each summer the plants may be seen flowering with great freedom in an open tank. It was in late April that the plants were first taken to Wisley, and, within four days from the time of planting, the first flowers made their appearance. Since then there has been a constant succession of flowers through each succeeding summer until the end of September. The *Nymphæas* are planted between bricks in a mixture of sand, leaf-mould and loam. The tank, which is protected from

the north and north-east, has been specially made to accommodate the Blue Water Lily. It contains about 4 feet of water and is supplied with hot-water pipes, although no heat is applied in the warm summer weather. It is thought that so long as the ice is kept away in winter, the plants will come to no harm. Although in a sheltered position, the plants receive full benefit from the sun. This is as it should be, for an excess of shade is prejudicial to all Water Lilies, while the flowers always look their best when the sun shines upon them.

GARDENING OF THE WEEK FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

Small Fruits.—In some gardens various small fruits, such as Red, White and Black Currants, are planted against a north wall, whereby the fruit supply can be maintained over a much longer period. When the fruit is nearly ripe, it should be covered with thin canvas or muslin.

Late Strawberries.—Plants growing on the north side of a wall should be given a thorough watering if dry weather exists, and then some light strawy material may be placed around the plants to keep the fruit clean.

The Kitchen Garden.

French Beans.—Another sowing of Dwarf Beans may be made for producing a late supply, and those already yielding pods should be examined at frequent intervals, removing all that are large enough. This will prolong the productiveness of the plants.

Turnips.—If the ground is available, a liberal sowing of Turnip seed should be made in shallow drills 1 foot apart. Select a rich piece of the garden, and make it fairly firm. To prevent the Turnip fly from attacking the plants, they should be dusted over with soot or wood-ashes in the early morning before the leaves are dry. Snowball, White Model and Early Milan are excellent for sowing at the present time.

The Flower Garden.

Wallflowers and other Spring-Flowering Plants.—These are now sufficiently advanced to prick out into nursery beds or in the reserve garden about 1 foot apart. Make the ground fairly firm, and, if possible, select showery weather, otherwise it will be necessary to keep the plants supplied with water until they become re-established. The Wallflowers should have their centres removed to encourage bushy specimens, but the plants must not be pinched again. Other subjects which require transplanting are Alyssum, Pansies, Aubrietias and Arabis.

Hedges.—The clipping of hedges and topiary work will require attention this month. The subjects embrace Box, Yew and Privet, while shrubs employed for covering banks, slopes, &c., must also be examined, and the tall, vigorous shoots cut down. If time permits, the pruning knife or secateurs should be used in preference to the shears, the latter giving the hedges a very formal appearance.

Climbers.—Many of these plants, particularly those not self-supporting, will need tying and thinning, but care must be taken not to cut away large quantities of flowering shoots. Vines and other climbers may be allowed to ramble undisturbed in the wild garden, but on pergolas the growth will require regulating. Wistarias produce a number of long shoots, and any not needed for extension may be cut back to within 6 inches or

8 inches of their base. This will induce the buds to swell and mature, and will invariably produce bloom next season.

Plants Under Glass.

Seeds to Sow.—Mignonette may be sown to furnish plants for early winter work. Double Wallflowers may also be sown, their delightful fragrance being always acceptable. Stocks, such as Beauty of Nice, All the Year Round and the Ten-week kinds, should be sown from now onwards; while Canterbury Bells are also useful. The above must receive cool treatment throughout, with plenty of light; then sturdy plants and strong spikes will be the result. *Humea elegans* may be sown in pans, placing them in gentle heat.

Chrysanthemums.—Cuttings that were struck late will now be ready for their flowering pots, usually 5 inches or 6 inches in diameter. Use a rich compost, and then stand the plants in a sheltered position outside. Do not pinch the shoots after the end of the month.

Fruit Under Glass.

Tomatoes.—Plants required for fruiting in the winter should be raised from seed sown at any time

should have the hoe used between the plants, as frequent waterings cause the soil to become caked.

Carrots.—A sowing of stump-rooted Carrots may be sown about this date to provide roots for winter and spring. Make also a further small sowing of the Early Horn variety, which will be useful during autumn and a saving of the main crop. A dusting of fresh soot occasionally between the lines during showery weather will help these greatly.

Onions.—The plants that were raised in heat and set out in April for supplying large bulbs should now have a liberal supply of liquid manure. It must be applied weak and often rather than in a few strong doses. The drainings from the farmyard form the best feeding agent for these vegetable crops, and should on no account be allowed to run to waste. Soot is also a good stimulant. Stir the soil with the Dutch hoe soon after each watering.

Shallots.—These, having now completed their growth, should be lifted and laid out to ripen on a dry position, exposing them to full sunshine. Turn them frequently during the process of drying;



THE BARN GARDEN AT SUMMER FARM, WEST CLANDON.

this month, selecting a free-setting kind. Raise the seedlings in gentle heat, and after placing them in small pots they should be arranged close to the roof glass.

Midseason Vines.—Grapes that are ripening require plenty of air, and if the weather is favourable, fire-heat will not be necessary. A light shading should be placed on the glass when the bunches are ripe. This remark applies also to Muscat Grapes, the foliage of which is liable to get scorched during hot weather.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Celery.—Later batches of Celery may still be planted, giving them the same treatment as recommended for early plantations. Watering must be carefully attended to until the plants become well established. The earlier plantations

their keeping properties depend very much on their being thoroughly ripened.

Globe Artichokes.—When the main heads have been cut, a further supply will be obtained from buds lower down the stems. These should be encouraged to swell by giving liberal soakings of liquid manure, which will also assist the pushing up of the young crowns. A top-dressing of manure, if it can be afforded, will also be beneficial.

Cucumbers.—Plants of these in full bearing require liberal waterings of weak liquid manure, and when the roots are seen in quantity on the surface of the beds, a top-dressing of fresh loam and thoroughly decayed manure may be given. Cut the fruits as soon as they are fit for use. Stop the shoots regularly, keep the growths well thinned out, and remove decaying foliage. Further plantations may be made for supplies in autumn.

Tomatoes.—Remove the fruits as soon as they have coloured. If left on the plants till fully ripe, they become soft and useless. Pinch out all side growths as they appear, leaving only the main stem, and admit abundance of light and air by

removing a part of the foliage. Feed liberally when the fruits are swelling. A poor soil with stimulants given at the proper time is better than growing in a rich soil. Sow a batch of a free-setting variety for winter fruiting. Keep the seedlings near the glass and pot on as they require a shift. For winter fruiting I find they do better in pots than when planted out on a bed.

The Flower Garden.

Replanting Narcissi.—It is advisable to replant Narcissi from time to time, for if left too long in one position many of them will deteriorate. Some varieties increase much more rapidly than others and require breaking up oftener. The bulbs should be lifted as soon as the growth is fully matured and beginning to turn yellow. They must not be left until all the foliage is quite withered, as root action will have again commenced. The bulbs can be left for a considerable time to dry in the sun before being replanted. If they are to occupy the same piece of ground again, a quantity of fresh loam should be mixed in along with some bone-meal. A large surplus of bulbs is sure to accumulate, and these may be planted in the grass, or, as bulbs for forcing will this season be limited, a portion may be potted or boxed up to supplement the cut-flower supply in winter and early spring.

Pinks.—It is advisable to raise a fresh stock of these annually, as the clumps soon become untidy. It is, however, a good plan to retain a portion of these for a second year to form bold masses. Cuttings or pipings root freely if placed in a frame with a little bottom-heat, or an ordinary cold frame kept close for a time. I have also seen them successfully rooted without any protection, being dibbled in in a partially shaded spot. If frames are used, it will be found most convenient to put the cuttings into pots, pans or boxes. Cuttings of the tiny varieties of Dianthus from the rock garden may be inserted now, also a few of the precocious Napoleon III. and barbatus (double dwarf crimson), two varieties of easy growth under suitable conditions, but very liable to get lost for want of timely attention to propagate.

Double Rockets.—These are other subjects which soon die out if not given some attention at the right time. As soon as the flowers are past, the plants should be cut over; this will encourage them to branch out and grow freely. Cuttings may be taken in the autumn, or the plants divided and replanted. Owing to their exquisitely sweet scent, these plants are well worth the little extra care required to keep them in good condition.

THOMAS WILSON.

Gardener to the Earl of Strathmore.
Glamis Castle, N.B.

EDITORIAL NOTICES

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS

FLOWER GARDEN.

STACHYS LANATA (E. C. C.).—"Our Saviour's Flannel" does not appear to be a commonly recognised vernacular name for *Stachys lanata*, and books on plant lore at our command do not mention it; therefore we regret to say that we are unable to give an account of its origin.

TREES AND SHRUBS.

TREES DISEASED (W. M. Ewen).—We regret that in the absence of specimens we are unable to say what may be the matter with your trees, but if specimens could be sent we should be pleased to have an examination made with a view to discovering the nature of the disease. It may be that some root fungus is at work, and to discover that it would be advisable to dig a tree up carefully and send a portion of the diseased area.

TREATMENT OF CLEMATIS MONTANA (M. J. Teesdale).—It would probably improve your plants of

INJURY TO ROSE JULIET (Mrs. P.).—The loss of foliage appears to have been damaged by frost, but is possibly the early stage of the same disease as is attacking the worse—blotch due to the fungus *Actinonema rosea*. All the foliage which has fallen should be burned, and the bushes attacked sprayed with Bordeaux mixture or Burgundy mixture.

MISCELLANEOUS.

INJURY TO LEAVES (Mrs. Y.).—We think the bad appearance of your trees is the result of the cold, wet season, and that attention to shelter (if they are in a draught) and to drainage of the soil would reduce the damage to a very small amount in another season.

TOMATOES FAILING TO SET (Rector).—We think the cause of this is due to the energies of the plant for the moment being so much taken up with the swelling fruit of the first truss that there has not been sufficient left to nourish and perfect the flowers on the second truss. Sometimes an excess of vigour will cause this. We do not think it is a disease, and believe the next flower truss will set all right. The precaution must be taken of cutting away all side shoots as they form, and of giving ample ventilation, when the weather is favourable, while the plants are in bloom.

PLANTING BULBS IN DRIVE (B. C. Leese).—Daffodils are not the best of bulbous plants to long succeed—if at all—in the vicinity of Beech trees; indeed, few plants of a bulbous nature will thrive, the dryness and poorness of the soil, in conjunction with the shade, being against them. Daffodils very largely have a preference for cool, moist ground, and, given this, may generally be counted upon to succeed in woodland or like places. If the shade was of a distant nature the chances of success would be greater, but in ground "overhung by Beech trees" we cannot hold out much hope of success. Moreover, the addition of "leaf-mould and peat" to a soil already "light" would be a fundamental error. In the light soil as it now obtains, we think you might succeed better by carpeting the ground with Winter Aconite, Anemone blanda, hardy Cyclamen, Dog's-tooth Violets, Fritillaria Meleagris, Snowdrops, Heavenly Blue Muscaris, Bluebells and the like, grouping Lenten Roses, Butcher's Broom, St. John's Wort, and such Ferns as the common Polypody and Nephrodium Filix-mas to afford variety.

MAKING A LAWN TENNIS COURT (An Old Reader).—The actual size of the playing area for a full-sized lawn tennis court is: Length, 78 feet; width, 36 feet. The net is fixed exactly in the centre, or 39 feet from each end. The outer margin at each end is called the base line, and the side margins are the side lines. Each base line is thus 36 feet long and each side line 78 feet long. From the side line at each side mark off a point $4\frac{1}{2}$ feet away from each side line at each end, and run lines parallel with the side lines. Then on these inner lines mark off points 18 feet from each end, and mark off lines between them parallel to the base lines. This will leave the net in the centre of an inner area 42 feet long and 27 feet wide. The lines 18 feet from the ends are the service lines, and in a game of singles the play is kept within the width of the 27 feet base lines, the whole 36 feet being used except for service in a doubles game. Outside the area of actual play there should be a run back space at each end of at least 21 feet from the base line, and a clear space of 12 feet should be available along each side line except when several courts are arranged side by side. In marking out, fix the corners and centre lines correctly by means of squares; then prove the centre by the junction of diagonal lines run between the corners. Once the ground has been properly marked out, the marking can be easily retained throughout the season.

NAMES OF PLANTS.—A. F. R.—The white Rose (No. 1) is *Rosa sericea*, the "Silky Rose" from the Himalayas and from Tse-chuan in Western China—it is the first Rose to bloom in our garden early in May; 2, the yellow Rose, is *Rosa Hugonis*.—Miss Longhurst, Leominster.—*Campanula Portenschlagiana* major.—On Sick Leave.—1, *Alnus glutinosa*; 2, *Populus alba*; 3, *Lomaria Spicant*; 4, *Teesdalia nudicaulis*; 5, *Conopodium denudatum*; 6, *Rhinanthus Crista-galli*; 7, *Veronica officinalis*; 8, *V. serpyllifolia*; 9, *Saxifraga*, too scrappy to identify; 10, *Myosotis arvensis* (?); 11, *Lathyrus palustris*.—E. H.—Cannot name seedling *Delphiniums* or *Ponies*; 1 to 6, forms of *Saxifraga umbrosa*, which are very numerous; 8 and 9, *Campanula latiloba*; 10, *C. rotundifolia* variety; 11, *C. Portenschlagiana*; 14, *Spiraea Aruncus*; 19, *Campanula persicifolia alba plena*.



ROSE UNA, NOW FLOWERING AT WISLEY.

Clematis montana and induce them to flower more freely if you were to thin the branches out well, removing as much as possible of the dead wood; then each year in future, as soon as the flowers fade, prune the flowering shoots well back in order that vigorous young branches may be formed, which by exposure to light and air will become thoroughly ripened. The soil conditions ought to be quite suitable.

ROSE GARDEN.

ABNORMAL ROSES (W. G. O.).—The Rose shows what is called proliferation—that is, the growing out of the stem through the flower and the consequent malformation of the bloom. The cause of this is unknown, but probably it is the result of the flower suffering a check during its development.

NATIONAL ROSE SOCIETY'S SHOW

No event in the Rose world is looked forward to with greater interest than the annual exhibition of the above-named society, which took place on Friday, June 30, in the Royal Botanic Gardens, Regent's Park. Patronised by Royalty for many years, and invariably visited by members of the Royal House, it was on the present occasion graced by the presence of Queen Alexandra, who has ever taken a keen interest in the society and its exhibitions. The selecting of two of the finer baskets from the collection of Messrs. Alex. Dickson and Sons, Newtownards, and taking them away with her demonstrated Her Majesty's special fondness for the flowers, the varieties being Margaret Dickson Hamill (a lovely golden variety) and Donald McDonald (a new and attractive scarlet). Generally, the show was smaller than usual, and the quality of the flowers, on account of the weather, below the usual standard. This notwithstanding, there was much to admire, the amateurs displaying even greater enthusiasm and skill than their professional brethren. An item of importance worth noting is that the proceeds of the show are to be devoted to the Red Cross Society. The arrangements were excellent throughout, and we desire to express our indebtedness to the hon. secretaries for the facilities afforded us in making our report.

NURSERYMEN.—EXHIBITION ROSES.

Seventy-two blooms, distinct varieties (Nurserymen's Champion Class): Five collections were staged, the premier prize—a champion trophy, gold medal and £7 in cash—being awarded to Messrs. A. Dickson and Sons, Newtownards, Ireland, for a magnificent lot of blooms, in which freshness, size and colour were dominant features. Among the best were Mrs. Stewart Clark (rich yellow), Mme. Mélanie Soupert, Avoca (reddish scarlet), Red Cross (fiery crimson, very telling colour), J. L. Mock (pink), Lady Greenall (cream and gold base, a lovely Rose), William Shean (handsome pink), Mrs. Maud Dawson (rich scarlet of good form), Bessie Brown, Mrs. J. H. Welch (cherry pink), Joseph Hill and Mildred Grant, perhaps one of the finest in the collection. Second, Messrs. D. Prior and Son, Colchester, whose H. V. Machin (brilliant scarlet), Medea (soft yellow), Mildred Grant, Mme. Jules Gravereaux, Mrs. C. Reid (blush), Mrs. Foley Hobbs, Mrs. Charles Russell (cherry red), Mrs. George Norwood (pink, very fragrant), Dean Hole, Margaret, Lieutenant Chauré and Mrs. Dudley Cross were among the best. Third, Messrs. R. Harkness and Co., Hitchin, their weightier blooms including Colleen (lovely shell pink), Lieutenant Chauré, George Dickson (intense crimson colour), Mrs. George Shawyer, Edgar M. Burnett (a charming pink), Cheerful (clear rosy salmon, a most distinct shade) and Queen Mary (an exquisite mingling of yellow and pink, which renders it unique).

Forty distinct varieties, three blooms of each, brought four collections, Messrs. A. Dickson and Sons, Newtownards, Ireland, again leading and staging a particularly good lot. Red Cross (a glorious crimson) was a great attraction; while Margaret Dickson Hamill (of unique golden colour), Mrs. J. H. Welch (cherry red), Mme. Mélanie Soupert, Mrs. George Shawyer, Dean Hole, Lady Inchiquin (pretty pink novelty), William Shean, H. V. Machin, Caroline Testout, Alexander Hill Gray (cream), Mrs. Andrew Carnegie (white) and Augustus Hartman were the best. Mrs. Arthur E. Coxhead (cherry red) was also fine. Second, Messrs. D. Prior and Son, Colchester, whose Lady Helen Vincent, H. V. Machin, Richmond, Medea, Mrs. Charles Russell, Mrs. W. J. Grant and Mrs. Arthur Coxhead were the best. Messrs. Frank Cant and Co., Colchester, who were awarded third prize, had trios of Lieutenant Chauré, Caroline Testout, Mrs. Theodore Roosevelt, Mrs. W. J. Grant, Hugh Dickson, St. Helena, Mrs. Foley Hobbs and Lyon Rose in their collection.

For forty-eight blooms, distinct varieties (China Trophy Class), three collections were staged, Messrs. Hugh Dickson, Limited, Royal Nurseries, Belfast, taking the lead with one of the finest collections in the show. Their best varieties were Gorgeous (salmon and cream), Mrs. Charles Russell (cherry), Snow Queen, Mrs. Hugh Dickson (yellow and cream), Nelly Parker (flesh white, one of the gold medal Roses), Joseph Hill (blush), George Dickson (grand), Mrs. R. D. McClure (soft pink), Lyon Rose, William Shean (very handsome pink), Archie Gray (red) and Mrs. John Jamieson (salmon pink). Second, Mr. Elisha J. Hicks, Hurst, Berks, whose best were George C. Waud, Margaret D. Hamill (golden), Prince Arthur (very dark maroon), H. V. Machin (scarlet) and Sarah Bernhardt.

For twenty-four distinct varieties, three blooms of each, Messrs. G. and W. H. Burch, Peterborough, were first, having Queen of Spain, Augustus Hartman, Lyon Rose (very good), William Shean, Mrs. Vanderbilt, Margaret and Lieutenant Chauré as their best; second Messrs. J. Burrell and Co., Cambridge, whose best were Lyon Rose, William Shean, Alexander Hill Gray and Mrs. Theodore Roosevelt. Most of the blooms in this collection bore traces of bad weather conditions.

Twenty-four blooms, distinct varieties, brought a keen competition, the premier award going to Messrs. Jarman and Co., Chard, for a capital lot. Notable sorts were Medea, Mamie, Augustus Hartman, G. Dickson (a grand flower), Mrs. Theodore Roosevelt, Mme. J. Dupuy (gold and pink), Mme. C. Soupert and Dean Hole; second, Messrs. Chaplin Brothers, Waltham Cross, whose exhibit was tilted at such an angle that only with difficulty and considerable inconvenience could the names be seen. H. V. Machin, Elizabeth, Dean Hole, Mrs. Chaplin (new white seedling), Mrs. J. H. Welch (peach), William Shean

and Mrs. C. E. Russell were the best. Third, Mr. Harry Richards, Warsash, whose Lyon, Florence Forrester and Mrs. Edward Mawley were very fine.

For twelve distinct varieties, three of each, Messrs. Jarman were again first with not very high quality blooms. St. Helena, Mrs. Foley Hobbs and Mrs. C. E. Russell were the best. Mr. Henry Drew, Longworth, was second, George Dickson and Lyon Rose being the more notable sorts.

TEAS AND NOISSETTES.

Twelve blooms: First, Mr. J. Mattock, Headington, Oxford, who had good Molly Sharman Crawford, Mrs. Foley Hobbs, Medea and Muriel Grahame in his lot; second, Messrs. J. Burrell and Co., Cambridge, who had in very good condition White Maman Cochet, Mrs. Myles Kennedy and Mrs. Dudley Cross; third, Mr. H. Weller, Ashted, Surrey.

Twenty-four blooms, distinct varieties (D'ombrain Cup): First, Mr. Henry Drew, Longworth, Farlington, Berks, whose best blooms were White Maman Cochet, Souvenir de Pierre Notting, Comtesse de Nadaillac, Mrs. Mawley (silver medal) and Maman Cochet. Molly Sharman Crawford (white) was also in fine form. Second, Messrs. D. Prior and Son, Colchester, who had good flowers of Mrs. Dudley Cross, Mme. Jules Gravereaux, Nita Weldon and Molly Sharman Crawford. Messrs. F. Cant and Co., Colchester, were third.

For sixteen distinct varieties, three blooms of each, Messrs. D. Prior and Son, Colchester, were first, having The Bride, Medea, Mrs. Dudley Cross, Mrs. H. Stevens (fine white), Molly Sharman Crawford and Nita Weldon among good sorts. Mr. Henry Drew, Longworth, was second, his better trios being White Maman Cochet and Molly Sharman Crawford.

PERPETUAL-FLOWERING DECORATIVE ROSES.

The basket classes are invariably among the most attractive of the whole show.

For nine baskets, nine distinct varieties, Messrs. Hugh Dickson, Limited, Belfast, were first with a splendid lot. Ulster Standard (single crimson), Mme. Edouard Herriot, Ethel Malcolm (blush), Mrs. George Shawyer, Irish Elegance, Mrs. James Lynas (blush), Mrs. David McKee (cream) and Lady Pirrie (a lovely basket) were included. Second, Messrs. Alex. Dickson and Sons, Newtownards, County Down, whose lot comprised Irish Fireflame, Mrs. H. Stevens (white), Lady Pirrie (a feast of colour), Donald McDonald (a fine red), Margaret Dickson Hamill (glorious yellow), Red Letter Day, Lady Hillingdon, General Macarthur and Chrissie Mackellar.

GROUPS OF ROSES.

For a representative group of cut Roses, space allowed 20 feet by 3 feet (Nickerson Cup Class), Messrs. B. R. Cant and Sons, Colchester, were first, having Iona Herdman (rich golden), Queen Mary, Mme. Edouard Herriot, Cupid (single pink), Gerbe Rose (blush), A. Hartman and Una (a grand semi-double white) among many good stands. Second, Messrs. Stuart Low and Co., who had fine basket groups of Molly Sharman Crawford, Mrs. F. W. Vanderbilt, William Shean, Chateau de Clos Vougeot (very intense in colour), Rayon d'Or, Lyon Rose and Mrs. Charles E. Pearson. Messrs. Jackman and Sons, Woking, were third. Mr. R. C. Notcutt, Woodbridge, also showed well, the whole constituting a formidable display and materially assisting the show from the spectacular point of view.

For a representative group of Roses on the floor, space not exceeding 250 square feet, Messrs. William Paul and Son, Waltham Cross, were placed first with a grand lot, a great centre-piece being formed of the brilliant Paul's Scarlet Climber, which has rarely been better shown. Included in the group were Queen of Fragrance, Lady Pirrie, Titania (apricot), Mme. Alfred Carrière (white climber) and Elise Robichon, which in bud and blossom and dark glossy foliage makes a charming picture. Messrs. Hobbies, Limited, Dereham, were second.

For a representative group of cut Roses on staging, space not to exceed 33 feet by 3 feet, Messrs. W. and J. Brown, Stamford, were well in the winning place with a grand display. The pillar Rose Mrs. Rosalie Winch, a rose pink sort, was a great feature in the centre, other notable sorts being Marquise de Sinety, Moyesii, Pharisæer, Sunburst, Comtesse du Cayla, Edith Part, Mme. Mélanie Soupert and J. B. Clark: quite one of the best displays in the show. The Rev. J. H. Pemberton, Havering-atte-Bower, was second, showing many of his own seedlings in a nice group.

AMATEURS.

Twelve blooms of any Rose except Tea or Noisette: First, Dr. T. E. Pallett with H. V. Machin (rich scarlet); second, Mr. H. L. Wettern, Oxted, with William Shean; third, Mr. A. Hill Gray with Mrs. A. Carnegie (white).

The Rev. F. R. Burnside took first for twelve exhibition Teas and Noisettes, having very fine Mme. C. Soupert, Maman Cochet and Mrs. Edward Mawley.

Dr. W. Panckridge took first prize for one basket of exhibition Roses, one variety, staging Mme. Jules Gravereaux (creamy blush), which also gained the silver medal; second, S. W. Burgess, Esq., Tonbridge, with Lady Ashtown (very beautiful); third, G. A. Hammond, Esq., who had Gloire de Chédane-Guinoisseau (a grand red).

The last-named gentleman staged the only exhibit of three baskets of cut Roses and gained first prize, having Irish Elegance, Lady Pirrie and Irish Fireflame (all very fine).

One basket of Roses: Three exhibitors staged, the first prize being awarded to Mrs. Beville Fortescue for Miss Amy Hammond; second, Miss B. H. Langton with Pharisæer.

The class for thirty-six blooms, distinct varieties, was strongly contested, no fewer than eight collections being staged. The first prize—a champion trophy, gold medal and £2 in cash—was awarded to Mr. Herbert L. Wettern, Oxted, for a fine lot, Lyon, Mrs. H. Stevens, William Shean (silver medal), Mildred Grant, H. V. Machin and Dean Hole being some of the best; second, Dr. Lamplough, Alverstoke, whose George Dickson, Horace Vernet (silver medal), Mrs. Myles Kennedy, Mrs. T. Roosevelt, Mrs. Foley Hobbs, Mrs. Amy Hammond, J. B. Clark and Mme. Jules Gravereaux were excellent. Mrs. Joseph H. Welch (a good pink) was very fine. At 5 p.m. this was much the fresher of the two exhibits named. This was quite an imposing class, doing infinite credit to the amateur grower.

Seven competed in the class for six blooms of any Rose save Tea or Noisette, the first prize going to Mr. H. A. Reeves, Gosport, who staged the blush white Mrs. Cornwallis West; second, Mr. F. G. Padwick, Petersfield, with Mme. Mélanie Soupert; third, Mr. A. Arkwright, Windsor, who had a good six of William Shean.

H. L. Wettern, Esq., Oxted, took first prize in the Alfred Tate Memorial Challenge Cup Class for twelve bunches of decorative Roses, Red Letter Day, Mme. L. Pain, Moonlight, Una, L. C. Breslau, American Pillar, Nita Weldon and General Macarthur being the best in a lot of which any amateur might be proud. At 5 p.m. the blooms were perfectly fresh and good. Mr. Conway Jones, Hucclecote, Gloucester, was second, his best being Gustave Regis, Irish Glory, Irish Fireflame and Bardou Job.

For four distinct varieties, three blooms of each, Mr. F. G. Padwick, Petersfield, was first, staging Mrs. A. E. Coxhead (cerise red), Lady Ashtown (lovely pink), Mrs. Stewart Clark (pink) and Mrs. Amy Hammond (blush).

LADIES' ARTISTIC CLASSES.

There was a distinct falling off in the number of exhibits in this extremely interesting section, which must in a large measure be attributed to the season and the war. There were, however, many beautiful exhibits. In Class 96, for a basket of Roses, there were five entries, first prize being awarded to Mrs. G. C. Sawday, Beechfield, Weybridge, who had a beautiful basket of double and single Roses of yellow and apricot tones of colour, daintily disposed.

Class 97 had six exhibits, and this was for a vase of cut Roses. A superb exhibit gained first prize for Mrs. Colston Hale, Warminster, for charmingly arranged Roses of the warmer colours. Chaste indeed was the second prize display of Mrs. Panckridge, Petersfield, Mrs. Herbert Stevens being the Rose employed. Third prize was awarded to Mrs. Courtenay Page for a vase of Irish Elegance.

A dinner-table decoration of cut Roses, Class 98, found five entrants, and first prize was won by Mrs. R. Allen Hope, Addlestone, Surrey, for a fair decoration of Irish Elegance, in which there appeared to be too few open flowers.

Class 99 was for a dinner-table decoration for any Roses except single-flowered kinds and there was a good contest. The decoration that attained premier honours came from Mrs. Courtenay Page, who had a lovely table of Sunburst, very deftly set up and with exquisite taste.

The seven entrants in the class for a bowl of cut Roses made a very interesting display. Here Mrs. Colston Hale gained the leading position with an extremely elegant arrangement of Mme. Mélanie Soupert.

In Class 103 there were six entries, the competition being for a hand-basket of Roses, lightly arranged. A beautiful flesh-coloured Rose, rather formally set up, won first prize for Mrs. A. E. Brown. Second prize went to Mrs. Colston Hale. Third prize was secured by Mrs. Oakley Fisher with Old Gold, and a lovely basket of Melody from Mrs. Courtenay Page deserved a better place.

Class 105, for a bowl of Wichuraiana Roses, found only four competitors. First prize was won by Miss J. B. Langton, Raymead, Hendon, for a beautiful vase of Francois Juranville. With the same variety Mrs. E. M. Burnett was placed second, and again with this useful Rose Mrs. R. Allen Hope was third.

There were four exhibits in the table decoration for those ladies who had never won a prize at these shows before. With a superb exhibit, using Irish Elegance, Miss C. Hale, Warminster, was a grand first, and with a less attractive exhibit of the same variety Mrs. N. Johnson, St. Margarets, Hornchurch, was placed second, and again with the same variety Mrs. Wiseman, Faversham, was third.

NURSERYMEN'S ARTISTIC CLASSES.

Of the six dinner-table decorations in Class 25, a bright and clean display of Irish Elegance gained first prize for Mr. Henry Drew, Longworth, Berks. With Autumn Tints and Irish Elegance, Mrs. May (Messrs. Chaplin Brothers, Limited), Waltham Cross, was placed second, and with a gloriously rich table of Princess Mary (a grand crimson single) Mr. Elisha Hicks, Hurst, Berks, was, for some reason unknown, placed in the third position only.

The six entrants for a bowl of Roses made a beautiful display. First prize was won by Mrs. A. Bide, Farnham, with a warm-toned exhibit, rather too compactly arranged. With a bowl of the richly coloured Rose Mme. E. Herriot, Mr. George Lilley, Yiewsley, Middlesex, secured second prize; and with a flesh-coloured Rose Mrs. May was third.

* * * Descriptions of the new seedling Roses will appear in our next issue.

HOLLAND HOUSE SHOW

THE great summer exhibition of the Royal Horticultural Society, held in the grounds of Holland Park by the kind permission of Mary Countess of Ilchester, opened on Tuesday, July 4, and continued for the two following days. Favoured by bright summer weather, a show of considerable magnitude was presented to view, despite the exceptional times. Roses, Sweet Peas, hardy plants, Ferns and Begonias have rarely been seen in finer condition, and if in lesser degree than on some former occasions, the reduction certainly favoured quality rather than otherwise. Orchids have been seen on a much more pretentious scale, though from leading growers many fine novelties were seen.

HARDY HERBACEOUS PLANTS.

These have ever constituted a great and an imposing feature at the summer show of the society, and this year, despite the strenuous times and regardless of the limitations of space they occupy, if in lesser degree than in former years, the just measure of prominence their popularity deserves. In each of the big marquees there were to be seen large banks of them, each group having a character of its own, suggestive in some measure of the particular lines most favoured or specialised in by its owner. For the greater rock, wall and water garden displays, for which for years this summer show had become famous, there was not room this year; hence in their stead exhibits on a less lavish scale, though equally suggestive, were the order of the day.

Quite at the entrance of one of the largest tents Messrs. J. Piper and Sons, Bayswater, had arranged amid rock boulders a meandering streamlet with shrubs in the background, and Iris Kämpferi and such Primulas as Bulleyana and Beesiana in the moister places. Rock banks were draped with *Gentiana frigida* and *G. Przewalskii*, the latter a lovely shade of blue. A couple of dozen examples of *Lilium regale* in flower made a fine display of this best of all trumpet Lilies. *Bletia hyacinthina* and a great mat of *Nertera depressa* were other features of the group.

Messrs. George Bunyard and Co., Maidstone, had a superb show of Delphiniums, arranging a great centre of their new Queen Mary, a brilliant sky blue with conspicuous white eye. Exquisite in itself, it appeared to dominate the group, so good and clear is the colour. It is said to be of almost *Belladonna* freedom, and therefore doubly valuable. As a good companion to the indispensable Rev. E. Lascelles, which was also well shown, nothing could be finer. Alake (rich purple) and Jessica (pale blue, dark eye) were others of note. Iris Shelford Giant, a vastly improved *I. ochroleuca*, was most telling. Alpines in variety constituted a good margin.

Messrs. Blackmore and Langdon, Bath, had some lovely Delphiniums, one of their specialities. We selected Mrs. A. J. Watson (deep mauve), Turquoise (light blue), King Bladud (a remarkable dark double sport from Rev. E. Lascelles minus its white centre), Mrs. Colin MacIver (self-coloured heliotrope mauve, very distinct) and Mrs. Shirley (pale heliotrope, semi-double).

A great feature of a large and comprehensive grouping from Mr. G. W. Miller, Clarkson Nurseries, Wisbech, was some six dozen or so spikes of *Lilium giganteum*, many of which towered to 7 feet or 8 feet high. Never before has this giant of its race been exhibited on so imposing a scale. Delphiniums Alake (rich purple), Rev. E. Lascelles, Lavender, Chaucer (dark blue), Gloriosa (azure) and Wisbech (semi-double sky blue with white eye) were excellent among others.

Mr. J. Box, Lindfield, had a great centre-piece of Delphinium Rev. E. Lascelles, encompassing it with *Erigeron* B. Ladhams, grouping freely *Lilium Hansonii* and *L. Grayii* (a brilliant and graceful species) among others. *Campanula glomerata* *superba* is a great advance, *Betonica grandiflora robusta* being also distinct in the rosy hue of its flowers. A bright lot of *Nymphæas* associated with water were very good.

Messrs. Barr and Sons, Covent Garden, W.C., staged sumptuously of Delphiniums, King of Delphiniums, Capri, Duke of Connaught, Moerheimii (white) and Masterpiece (dark blue) being some of them. Early Gladioli Crimson Queen, Fiery Knight and Peach Blossoms were, with others, making a goodly show, the English Irises being also of conspicuous merit. *Tritonia Prince of Orange* was very striking, the dwarf golden-flowered *Genista dalmatica* dowered with its brilliance. It is a most effective plant.

Messrs. George Jackman and Son, Woking, contributed freely of Delphiniums, having the lovely pale blue Capri, Rev. E. Lascelles, King of Delphiniums, True Blue and others. *Lavatera Olbia* (clear rose colour) and *Astilbe gloriosa* (the richest coloured of its set) were also noted. *Acantholimon venustum* was a notable alpine.

Messrs. Harkness and Co., Bedale, had some brilliant Gaillardias, notably Mrs. Mackellar (crimson and gold) and Peter Brownridge (almost wholly golden, with flowers of great size). *Verbascums* were a great feature, Harkness' Hybrid, Britannia (bronze), Joss Richardson (gold and bronze) and Lady Allison (rich golden) being good. The Queen Oriental Poppy (a fine pink shade) was excellent.

Messrs. Wallace and Co., Colchester, were this year filling about one-half of their usual space, and because of the recent cold and sunless weather were unable to display the sumptuous wealth of Iris Kämpferi we know they possess. This notwithstanding, they filled 900 square feet with a great array of hybrid *Eremuri*, together with such as *E. Warei*, *E. Bungei magnifica* and much besides. A water pool, suitably surrounded with foliage and flower, was brilliant with the choicest *Nymphæas*, such Lilies

as *pardalinum Johnstonii* and others appearing in the background. Elsewhere *Lilium Hansonii* was finely grouped. In addition a rich assortment of Irises was seen, I. Shelford Giant, I. Mon-aurea (rich golden), I. Delavayii (intense royal purple, quite a graceful species) and I. spuria lilacina being notables in the lot. Fronting the water pool a brilliant lot of hybrid Primulas (*Bulleyana* × *Beesiana*) and a delightful margin of alpines were seen. Showy groups of Larkspurs and much else were on view, but lack of space precludes our giving them in detail.

Mr. Amos Perry, Enfield, Middlesex, had without doubt the most sumptuous grouping of hardy plants—herbaceous, bulbous, Water Lilies and Ferns—the show contained, the 1,400 square feet occupied with the choicest and best. Lilies were seen on a lavish scale, and in a group alone demonstrated—if in a fractional degree—some of the wealth this unique genus contains. The hybrid Marhan set (*Martagon* × *Hansonii*) was well represented by Miss Willmott and G. F. Wilson. The graceful golden-flowered, freely spotted *Lilium Roetzii* was very beautiful; it has a great charm. Interesting and beautiful, too, was *L. washingtonianum*, of chameleon proclivity; while others of note included the lovely new golden Amos Perry (certificated a year ago), *L. cernuum* (virtually a red-flowered tenuifolium), the lovely *Krameri*, *Martagon album* and a lovely lot of the easy-doing—a rare attribute in Lilies—*L. Hansonii*. Great masses of Delphiniums, amid which the exquisite sky blue beauty of *D. Belladonna* semi-plena appealed at a glance, and *Dianthus Gladys Cranfield* (single pink with crimson centre) were other things of note. The rich collection of hardy Ferns we cannot do justice to; it was practically alone. *Polystichum angulare divisilobum plumosum* Perry's No. 1 is so beautiful that we found ourselves mentally wondering whether No. 100—when it comes—will be blessed, or otherwise, with a string of names in proportion. Three superb forms of *Athyrium* were *plumosum divaricatum*, *p. superbum* Drury's variety, and *todeoides*. *Scolopendrium crispum nobile* was very fine.

Phloxes for years past Messrs. H. J. Jones, Limited, Lewisham, S.E., have made their own, and on this occasion they were showing them well again. A year ago they staged the finest collection of pot-grown plants ever seen at an exhibition. This year they were content to display a fine series in the cut state. Well done, as of yore, the finer things included Mrs. H. J. Jones (light rose pink), Mrs. Alder (pearly pink, very beautiful), Mrs. John Meakins (salmon), Doris Meakins (white, pale pink eye), Violet Guest (deepest salmon), G. A. Strohelein (scarlet), Rose Queen and Rev. Gilbert Rayner (fine salmon red and very distinct).

Mr. J. C. Allgrove, Middle Green, Langley, Slough, had a table group rich in Primulas, such as *Bulleyana rosea*, *capitata*, *Poissonii*, *Beesiana* and *pycnoloba*, the last named very curious and interesting. Other notables in an exhibit of much excellence included *Lavatera Olbia grandiflora*, *Eremurus Warei*, *Trollius pumila yunnanensis* (rich golden), *Rodgersia aesculifolia* (with white plumes), *Trollius Ledebouri* (orange), *Polygonum spheerostachyum* (brilliant red) and *Epilobium oboordatum*. Choice flowering trees included the rarely seen *Fremontia californica* (rich golden yellow) and *Magnolia parviflora*, whose creamy, saucer-formed flowers, while emitting a grateful perfume, are in striking contrast with the maroon crimson anthers. No member of the genus is more richly endowed, none certainly more welcome.

Messrs. G. Stark and Son, Great Ryburgh, contributed a nice lot of double and semi-double Shirley Poppies in several attractive shades of rose and pink.

Messrs. G. and A. Clark, Dover, in addition to a good display of Delphiniums in leading sorts, had a particularly fine plant in *Iris spuria* F. W. Tate, very pale blue. *Campanulas* and *Geums* were showy.

Mr. Maurice Prichard, Christchurch, Hants, had many good things, alpine and herbaceous. Prominent items were *Campanula macrantha* Maurice Prichard, of rich purple and white; *C. mirabilis*, a rare species not often seen; and *C. arvensis*, a gem for the moraine. Very brilliant was *Geranium hybridum* Russell Prichard, virtually a brilliant *G. sanguineum*. *Orchis foliosa*, *Alstroemeria revoluta* (rich red), *Genista tinctoria humifusa* (golden), and *Eryngium Violetta* (a deep-coloured *E. Olivarianum*) were among other good things in an interesting lot.

A showy group from Messrs. T. S. Ware, Limited, Feltham, included several handsome *Verbascums*, notably Lady Allison (golden, bronze centre) and Lady Havlock Allen (fuller bronze). These are noble-looking subjects. Delphiniums in variety, *Pæonies*, *Heucheras*, and *Erigeron Edina* (white) were among other good things in an extensive grouping.

Messrs. Waterer, Sons and Crisp, Twyford, arranged a background of Delphiniums and *Erigerons*, separating a rock bank from this by a narrow path. In the latter were *Campanula pulloides*, *C. G. F. Wilson*, *Spiræa digitata nana* (a pretty plant less than 8 inches high), with *Nepeta Mussinii* and *Linaria vulgaris* *Peloria*. *Campanula persicifolia* Wargrave Blue is a very showy plant.

Messrs. Bakers, Wolverhampton, had a great showing of *Geums*, *Lychnis Viscaria splendens plena*, *Scabiosa caucasica*, *Achillea alpina* and *Pæonies*, together with a water group in which many good *Nymphæas* were seen.

Messrs. Godfrey and Sons, Exmouth, Devon, showed well of their superb Cup and Saucer strain of Canterbury Bells, which in pink, white, blue and other shades, with the excellent cultivation received, were most attractive.

Messrs. Kelway and Son, Langport, sent a big assortment of Delphiniums, from out of which we selected

Dusky Monarch, Effective (mauve), Rev. E. Lascelles, Star of Langport (pale blue, white eye), Lord Holland (deep mauve, dark centre) and Smoke of War (a dense, filled spike of some shade of purple). It is distinct, though not, in our opinion, attractive).

Messrs. John Forbes (Hawick), Limited, had in the open an exhibit of Phloxes, Pyrethrums, Pentstemons, Delphiniums and Violas of exceptional freshness and brightness, a tribute to good culture and a favourable locality for these best of hardy flowers.

Messrs. R. H. Bath, Limited, Wisbech, had a showy exhibit of *Pæonies*, English and Spanish Irises, early Gladioli and Delphiniums. In the latter, *Le Danube*, *Resplendens* and *Ceres* (deep mauve) were among the more distinct.

Mr. B. S. Ladhams, Shirley, Southampton, made an imposing display of hardy Pinks, from out of which we selected *Inchmery* (pale pink), *Elsie* and *Nellie* (deep rose shades), Mrs. Prior (white, crimson base), *Aurora* (pink, crimson base) and *Favourite* (semi-double pink with crimson centre). In bold groups they were most effective. *Gaillardia Lady Rolleston*, a self yellow, disc and all, was also good.

Mr. A. D. Thompson, successor to Messrs. Thompson and Charman, Bushey, had good examples of *Pæonia lutea splendens* (rich golden), *Lilium regale*, together with *Geums*, *Nertera depressa* and a good batch of seedling Delphiniums.

Messrs. Whitelegg and Page, Chislehurst, arranged a big arch of the Loganberry Newberry, and on either side carpets of *Campanula* Miss Willmott, *C. pulla*, *C. G. F. Wilson* and the lovely blue and white *C. garganica* W. H. Paine, an indispensable plant to all who have rock gardens. *Epilobium oboordatum* (rose coloured) was of exceptional beauty.

Messrs. Lilley, Guernsey, had one of their charming groups of *Ixias*, *Sparaxis* and other bulbous plants. *Sparaxis pulcherrima* was most graceful. *Gladiolus insignis* made a good scarlet centre. *Brodiaea peduncularis* is an ever-flowering plant having blue flowers. *Moræa iridioides* is of great charm in white and blue, and a plant of exceptional merit and beauty.

HARDY TREES AND SHRUBS.

Excluding Roses, which form a section by themselves, the exhibits of shrubs at Holland House are never so numerous or so large as at Chelsea, where they form a very important feature of the show. But, while the relative groups of shrubs were full of interest, the Donard Nursery Company, Newcastle, County Down, Ireland, brought their customary contribution of shrubs, which especially appealed to the lovers of rare and uncommon species. Perhaps the finest specimen was an immense bush of *Tricuspidaria dependens*, more generally known as *Crinodendron Hookerianum*. This bears quantities of fascinating deep red flowers. But the outstanding feature was the masses of *Leptospermums*, wonderfully beautiful little shrubs which bear a profusion of bright flowers and are much harder than is generally supposed.

Mr. L. R. Russell, Richmond, grouped outside the large tent a splendid collection of hardy trees and shrubs, arranged with great skill. The old favourite *Erythrina Crista-galli* was very prominent, as also were *Escallonia philippiana* and *E. langleyensis*. The Golden Ixies, for which Mr. Russell is justly famed, were also represented, and brighter colour was provided by many ornamental Vines and Japanese Maples.

In the exhibit from Mr. G. Reuthe, Keston, Kent, *Rhododendrons* out of flower, but illustrating a great diversity of foliage, form and hue, were the outstanding features. Besides these, there were rare deciduous shrubs, which were of much interest.

In the tent Messrs. J. Piper and Sons, Bayswater, had a splendid set of Chinese and other shrubs. *Potentilla vilmoriniana*, *Cistus algeriensis* (especially dainty and charming), *Clematis Campanile* and *Juniperus pachyphæa* elegantissima were also of more than ordinary merit.

Messrs. J. Cheal and Sons, Crawley, gave particular prominence to an interesting and valuable assortment of shrubby *Veronicas*, and also featured the rare *Clematis integrifolia cærulea*, *Escallonia Edinburgh* (hybrida) and good sorts of *Philadelphus*.

Japanese dwarf trees of great fascination were staged by Messrs. Barr and Sons, Covent Garden, and the Yokohama Nursery Company, Kingsway, London: while Messrs. John Piper and Sons and Messrs. J. Cheal and Sons showed perfectly trained specimens of the topiarist's art.

ALPINES.

These were in far fewer numbers than we before remember at any of these gatherings, though many interesting plants were staged.

Of special importance were some choice things from Mr. Reginald Prichard, West Moors, Wimborne, particularly *Silene Prichardii*, hybrids between *S. Hookeri* and *S. virginicus*, which have a lovely range of colours in salmon and scarlet. *Campanula Kolenatiana* has great expanded bells on an 8-inch high plant, and is highly ornamental.

Mr. J. Box, Lindfield, Sussex, had the beautiful *Anemone demissa* (bluish white flowers on pubescent stems). *Campanulas* of the *garganica* class and *C. Raddeana* were also well shown.

Messrs. T. S. Ware, Limited, had a pretty array of *Sedums*, *Thymus Serpyllum coccineum*, *Cobweb House-leeks* and *Epilobium oboordatum* among many things.

Messrs. J. Cheal and Sons, Crawley, arranged nice groups of dwarf *Campanulas*, *Androsace lanuginosa*, *Hypericum fragile*, *Dianthus deltoideus* in variety, *Thymus Serpyllum coccineum* and many other things in front of Delphiniums and other showy subjects.

THE GARDEN.

No. 2330.—VOL. LXXX.

JULY 15, 1916.

NOTES OF THE WEEK

THE National Rose Society has been able to hand to the British Red Cross Society the sum of £76, being the whole of the gate receipts at its Summer Show held on June 30. Owing to the war the Council has decided not to hold the usual provincial show this year; but in order that raisers of new seedling Roses might have an opportunity of staging their productions, a special exhibit of new seedling Roses will be held, by kind permission of the Royal Horticultural Society, at the Royal Horticultural Hall, Vincent Square, Westminster, on Tuesday, July 18. The Roses will be judged and the awards made by the new seedling Rose committee of the National Rose Society. A limited number of admission tickets have kindly been placed at the National Rose Society's disposal, and any member is entitled to one on application to the hon. secretaries.

An Attractive Dianthus.—One of the most striking bits of colour for the rock garden at the present time is *Dianthus deltoides* Bowell's variety. It is equally as floriferous as the well-known Maiden Pink, but the colour is a rich deep red, with a darker ring round the centre, and as the majority of alpine Pinks are more or less of a light colour, this rich-coloured form is a fine acquisition.

Weeping Standard Roses.—The question is often asked, What should be the height of a weeping standard Rose? Some will answer 8 feet or 10 feet, or the higher the better; but we have a great liking for the low standard, say, about 4 feet, so that one may look down on the top of it. At Wisley such standards are a great success.

The varieties there are Wichuraianas of French origin, and include Francois Guillot, cream and pink, shown in the foreground of the illustration; Elise Robichon, blush and pale yellow; Leontine Gervais, apricot and salmon rose; Joseph Lamy, white, edged mauve pink; Jean Guichard, coppery carmine; Adelaide Moule, pink; and Joseph Billard, single, deep pink, centre rich yellow.

William Kelway, J.P.—We are interested to learn that Mr. William Kelway, eldest son of the late James Kelway, the founder of the well-known nursery firm, has been made a magistrate for the County of Somerset. He was the originator,

together with his foreman, the late Peter Drummond, of the present-day form of florists' Delphinium and of the perennial Gaillardia.

Staff-Sergeant J. Giles.—We were recently very pleased to meet Mr. J. Giles, who was for three years sub-foreman of the Orchid Department at Kew. In 1907 he was appointed Assistant Superintendent of the Parks of Shanghai, afterwards taking up landscape gardening in Victoria, B.C. On the outbreak of war he joined the Colours, and he is now in England with the 88th Battalion, Canadian Expeditionary Force. His ambition, when war is over, is to go back to China

Our Natural Resources.—The Haber process is a jealously guarded secret, and so far all our efforts to produce similar results have failed. Sufficient water power to develop comprehensive quantities of electrical energy within the German Empire is one of the few things lacking among its natural resources, and the fact that the United Kingdom is more favourably situated in this respect suggests that if we utilise our water power the country could be equipped with an effective competing organisation for the production of nitrogenous manures. Scotland, Wales and Ireland are the principal areas in which water power

could be made available. Unless the State takes up the question, private enterprise will be found hopelessly inadequate to cope with the carefully prepared State-aided organisation of Germany.

Employment for Women on the Land.—The Board of Agriculture and Fisheries understand that fees are being asked for by certain agencies as a condition of offering to find employment for women on the land. The Board wish it to be clearly understood that such payments are unnecessary in view of the arrangements made under their authority for this purpose.

Exhibitions of Home-Grown Fruits and Vegetables.—At the Holland House Show of the Royal Horticultural Society a particularly attractive and useful exhibit of fruit and vegetables was put up by the Market Gardeners', Nurserymen's and Farmers' Association. The collection was a most representative one, and the vegetables and fruit were in excellent market condition. It received a highly

commended award. It is gratifying to learn that similar exhibits are to appear at the society's fortnightly exhibitions at Vincent Square, for which special arrangements have been made in the society's programme, to demonstrate the home production of fruits and vegetables, and for further encouraging the industry among home growers.

*** Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.



LOW STANDARDS OF WICHURAIANA ROSES AT WISLEY.

German Nitrogen Industry.—A recent article in the *Daily Chronicle* gives some idea of the extraordinary rapidity which the Germans have imparted to the nitrogen industry with reference to its bearing on the future of agriculture. It is pointed out that Germany can produce from the air synthetic nitrogenous fertilisers in the form of sulphate of ammonia by the Haber process so cheaply and in such quantities that the market in nitrogenous products throughout the world may be as seriously affected as the industry in dyes was some years since by the same people.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Rose Princess Mary.—Those who saw this handsome single Rose as exhibited by Mr. Elisha J. Hicks of Twyford at the Holland House Show are not likely to forget it. A lavish gathering of it was dexterously placed in the centre of his beautifully arranged group, and it was impossible for the attention of passers-by not to be arrested by its splendid rich deep crimson colouring and the pose of the shapely flowers. To my mind it is the most telling of all the singles, and, as shown, it was undoubtedly a feature of the show.—F. H. C.

Ozothamnus rosmarinifolius on a Warm Wall.—I enclose a photograph of a good plant for a warm wall—*Ozothamnus rosmarinifolius*, hoping that it may be of use in THE GARDEN. The plant was quite a small one when planted out just over four years ago; it has now grown to 10 feet in height, and is well furnished to the ground. For graceful appearance I think it difficult to be matched. The weight of the flowers causes each shoot to curve in a very pleasing manner, the whole plant appearing as if covered by snow. It is preferably planted out from a pot, and should be placed in its permanent quarters when quite young.—C. WAKELY.



A HANDSOME SHRUB FOR A WARM WALL:
OZOTHAMNUS ROSMARINIFOLIUS.

Escallonias in South-West Scotland.—I have lately come across my memoranda relating to the Escallonias in the wonderful gardens of the Marquis of Ailsa at Culzean Castle. I see in these notes the following mentioned as being cultivated at Culzean: *Coquimbensis*, *exoniensis*, *illinata*, *Ingrami*, *langleyensis*, *macrantha montevidensis*, *philippiana*, *pterocladon*, *punctata sanguinea*, *punctata alba*, *punctata rubra*—all of these were doing well, with the exception of *coquimbensis*. At Barskimming, which is some distance inland in the same county (Ayr), both *macrantha* and *philippiana* were noted as not doing well.—S. ARNOTT.

Eucryphia pinnatifolia and E. cordifolia.—In the neighbourhood of London *E. pinnatifolia* is quite hardy, though in a young state somewhat liable to die off suddenly. It was introduced by Richard Pearce of tuberous Begonia fame, and, up till the dispersal of the Coombe Wood collection, one of the original specimens used to form a delightful annual feature. The specimen was about 15 feet in height, and used to bear hundreds of blossoms. *E. cordifolia*, on the other hand, has simple instead of pinnate leaves, while the petals are five in number, instead of four as in *E. pinnatifolia*. The most important feature, however, from a cultivator's point of view is that it is far more tender than *E. pinnatifolia*, and at Kew it will not withstand the winter. It is also strictly an evergreen. According to Mr. Bean, there is a fine specimen some 18 feet high and 6 feet through at Handcross in Sussex.—P. H.

Asphodels.—Enclosed is a photograph [Unfortunately, not suitable for reproduction.—ED.] of Asphodels found in Corsica, where the picture was taken. It may interest those of your readers who are only familiar with the two English kinds. This Asphodel adds greatly to the picturesqueness of the Corsican landscape, and brings to mind the lines of the poet Pope:

"By the streams that ever flow,
By the fragrant winds that blow
O'er the Elysian flow'rs;
By those happy souls who dwell
In yellow meads of Asphodel.

Restore, restore Eurydice to life;
Oh take the husband, or return the wife!"
("Ode on St. Cecilia's Day.")

—M. L. P.

The Bee and the Wasp Orchises.—In my article on "Clifton Down: To-day," issue June 24, page 312, it was stated that the extremely rare Wasp Orchis (*Ophrys Trollii*) had been known in the Bristol district since 1787, when Michael Collinson had three roots sent from Clifton. The photograph is of a plant growing close to a "Bee," which I found on June 25 within sight of the people on Durdham Down that Sunday evening. I carefully cut the stems and left the tubers, for very few of these Orchids are now seen, though the "Bee" is frequent enough on limestone or oolitic soil further afield. A correspondent to-day tells me that in one of Miss Edgeworth's stories, "L'Amie Inconnue," a character is represented as bringing in a basketful of Bee Orchis from St. Vincent's Rocks. The Wasp Orchis is a good variety of the Bee; and the central lobe of the labellum presents from the front a long triangular form, much narrower than that of the Bee, and tapering to an attenuate, slightly reflexed point.



THE BEE AND THE WASP ORCHISES.

It is pale yellow and purple-brown, and the sepals are longer and more pointed. A good drawing of the complete plant appears in Mr. J. W. White's "Flora of Bristol." Interesting notes on *O. Trollii* were published in the *Journal of Botany*, 1907, by Messrs. J. W. White and E. S. Marshall.—H. STUART THOMPSON.

Toads and Strawberries.—In my opinion it is a libel on this useful reptile and gardener's friend to accuse it of eating Strawberries. My acquaintance with toads extends back for many years, and their mode of feeding is so well known to me that I cannot understand their interfering with anything that remains motionless. The toad, as is generally recognised, lives on insects, worms, slugs [We have recently heard from a reliable source that toads never dine on slugs.—ED.], &c., and, as far as my experience goes, it will not touch its victim as long as it keeps still. At the least sign of movement the glutinous tongue of the toad darts out and the insect is transferred to its mouth. The toad cannot breathe if its mouth remains open, and this makes the Strawberry story very difficult to swallow. I have noticed that in the case of a toad attacking a worm it will often seize its victim in the middle, so that it is got rid of in two or three spasmodic gulps. This, however, is not always the case, for if it takes hold of the worm by one end, it drags it in as soon as possible in order that its normal respiration may be again resumed. The toad has been blamed for many things, but this is the first time that I have heard of it being accused of eating Strawberries. Of course, we know that animals have before now acquired strange tastes in the matter of food, but such is scarcely likely in the case of this useful reptile, the specimen of which was most likely hunting for food in the Strawberry-bed.—H. P.

Brodiaea congesta.—This plant is somewhat of a weed here, and once it gets among Crocus patches is hard to get rid of. I dislike its long, fleshy leaves when they appear among choice and delicate plants; but where they can be tolerated and their place taken late in June by the yard-high slender stems and round heads of violet flowers, it is worth encouraging. I find it a charming flower for cutting, or rather pulling, for it comes away from its bulb at the slightest pull, and in a tall vase the effect of a dozen or two is very graceful, and they last for more than a week if cut before all the flowers of the head are open.—E. A. B., *Waltham Cross*.

Rosa scabrata.—This beautiful seedling from the wild Dog Rose is worthy of the praise bestowed upon it by "White Lady" and by Mr. E. A. Bowles in *THE GARDEN* of July 8. A few days ago I saw with great joy, just inside the garden at Myddelton House, the large bush referred to. It is all that is claimed for it, a glorified Dog Rose with flowers much larger and of deeper pink than the wilding. There is something uncommonly bright and fresh looking about its large roundish flowers. It is quite the best single pink Briar Rose I have seen, and it is self supporting, which is a great point in its favour as a garden plant. It would, of course, look out of place in a very trim garden, but in those of less formal character it brings with it one of the great charms of our neglected hedgerows, both in flower and fruit, only in a greatly improved form.—C.

London Pride.—I was pleased to see that "C. Q." has drawn attention to this delightful Saxifrage, and can support all he says in its favour. Here we have two or three large patches, and last year two beds were filled with it, with Tulip La Rêve intermixed. The effect was very pleasing, but it is advisable to have good clumps with strong flowering crowns and to plant thickly to secure the best results. Many of the common, and consequently neglected, plants are most beautiful, but, unfortunately, they have not the hall-mark of China upon them and no one to blow a fanfare of trumpets in their favour. Numerous fine plants have been introduced from China, of which Rosa Moyesii, Primula Bulleyana, P. pulverulenta and various Buddleias may be cited as examples, but I am inclined to think that latterly the importations have been overdone, and many plants only fit for the rubbish heap have been brought before the public notice. We want plants to possess a good constitution and to produce at least a moderate display of bloom.—T. W. B., *Chepstow*.

The National Rose Society's Classes.—In a recent issue of *THE GARDEN* there was a note referring to the vague wording of the society's show schedule. Classes 63 and 64 are rather incomprehensible. If confined to those who grow their Roses without assistance (mostly those with under 200 plants), to exhibit decent blooms of twenty-four distinct varieties would be difficult indeed, even if the show happened on that one day of the year when one's Roses reach their zenith. A class for unassisted growers would be very acceptable to us minnows who now compete with the Tritons of unlimited means and men, but it must be smaller—not more than twelve blooms in, say, eight varieties. Then as to staging, a twenty-four box requires some handling, yet apparently no help must be obtained to put it on the stage. At the show the judges evidently could not understand the new wording in the decorative classes, as they awarded

first prize for six distinct varieties to an exhibit staged in thirteen receptacles, several being used for each variety, yet the conditions say "each variety to be in a separate receptacle."—UNASSISTED.

Early Flowering Roses.—Bardou Job, that fascinating glowing crimson variety, should be added to those named by Mr. Edward Mawley in his interesting "Thoughts" by all who appreciate early garden Roses. It is one of the first Hybrid Tea varieties, if not the first, to open, and its flowers are heralded by delightful reddish purple shoots. Its only fault is that the semi-double flowers do not last very long, but it is vigorous and free, producing a goodly succession. The official catalogue of the National Rose Society states that Bardou Job is tender, but I have never found it so, and in my case any tenderness that may be inherent may be circumvented by moderate drainage. The wonderful golden Harrisonii has probably never before

War Funds, and though we have been working only two months, we have been able to make a donation of £50. We are, however, working under great difficulties, as we are amateurs competing against professionals with all their greenhouses, stock and knowledge, and we are trying to capture the support of the neutrals so as to gain more profits and get some of the money that is at present going into German pockets. It is imperative that we should have greenhouses for our winter's stock, and negotiations are now proceeding for the purchase of same. We appeal to some of the owners of large gardens and greenhouses to spare us a few of their surplus stock of bulbs, Cyclamen corms, Gloxinias, &c.; such would be of great assistance to us. To send us a dozen or so of any of these, or other things, would not cost the owner a very great sum, as they all travel well, packed in small wooden boxes in sawdust, and can be sent by parcel post *via* Suez. But for us to order them in any quantity



THE BEAUTIFUL DOG ROSE, ROSA SCABRATA.

been so glorious as this year; perhaps the baking in May, followed by the cool June, suited it.—CECIL BARTLETT.

A British Flower Shop in Shanghai.—We commend to the notice of readers the following appeal for surplus plants, received from a constant reader of *THE GARDEN* in Shanghai: "Before the war started, all the florist trade in Shanghai was in the hands of Germans. They had the monopoly of all the best flowers, and made all the wreaths, wedding bouquets and floral decorations. After the outbreak of war this state of affairs was most objectionable to the British community. A small private company was therefore floated, with some of the leading men of Shanghai as directors, and a ladies' committee, and we have now started 'The British Flower Shop.' Its emblem is a red Rose, and its motto 'Ut prosim.' Its Chinese name conveys the meaning—'fragrant, all-pervading benevolence.' All profits from the shop go to Allied

is more than we can afford at present, as our starting expenses are very heavy and freight is so high. I am sure that, did a few generous people in England know of our undertaking and our desire to have as good flowers as the Germans, they would spare us a few of the things that they have in their greenhouses, which would be considered novelties out here, though they may be common enough at home. Ever so small a contribution of bulbs, &c., will be gladly received. 'The British Flower Shop,' Shanghai, China, is sufficient address."

FORTHCOMING EVENTS.

July 18.—Royal Horticultural Society's Meeting and Exhibition at Vincent Square, Westminster.

July 20.—Carnegie Dunfermline Trust's Show at Pottencreeff Park, Dunfermline (two days). Manchester and North of England Orchid Society's Meeting and Exhibition.

NEW ROSES AT THE NATIONAL ROSE SOCIETY'S SHOW

THE new seedling Rose tent was shorn of much of its attractiveness this year by the absence of two noted raisers—Messrs. Alex. Dickson and Sons and Messrs. McGredy and Son—and although there were a few good varieties shown by other raisers, on the whole the novelties were disappointing. Considering the season, this was to be expected, and we shall certainly look for a more imposing display at the Royal Horticultural Hall on July 18, when the National Rose Society will be holding an exhibition of new Roses in conjunction with the Royal Horticultural Society.

Two gold medals were awarded, one to

Nellie Parker (H.T.), a most beautiful variety and one that will be much wanted. Its colour is pale creamy white with deeper centre, and flushed with pale pink at the tips of the petals. It is freely produced upon strong, erect growths, has most delightful foliage, is superb in form of flower and sweetly scented. Shown by Messrs. Hugh Dickson, Limited. The other gold medal was awarded to

C. E. Shea (H.T.), a variety of the type of Mrs. George Shawyer, but not so full. The flowers have a rich suffusion of salmon merging into rosy pink. They are of lovely elongated form. As a market variety for growing under glass it will be most useful, and doubtless valuable for outdoor culture. Exhibited by Mr. Elisha J. Hicks and raised by Messrs. Lowe and Shawyer.

Certificates of merit were awarded to

Archie Gray (H.T.), which might be described as a better-coloured Mrs. Coxhead. It possesses a grand form, and for the exhibitor will be very welcome, but we fancy it will turn slightly bluish as the flowers age. From Messrs. Hugh Dickson.

Mrs. A. W. Atkinson (H.T.) is a bold flower of lemon white colour. In form and fulness it is superb, and to the exhibitor it will prove most valuable. The growth is rather dwarf and very rigid.

Lord Kitchener (H.T.).—A fine bright red, of free habit and good form. As an addition to red Hybrid Teas it will be welcome. Both from Messrs. Chaplin Brothers.

Emily Gray (Hybrid Wichuraiana).—A climbing variety of great value. Its flowers are large, generally borne in clusters of five, colour rich golden yellow, the buds streaked with crimson on the outer petals. The flowers are almost as large as those of *Rêve d'Or*, and the plant possesses lovely glossy foliage, larger, but otherwise similar to that of *Shower of Gold*. From Dr. A. H. Williams.

In the general show we noted a few fine novelties raised by Messrs. Alex. Dickson and Sons, one of the best being *Margaret Dickson Hamill* (H.T.), a glorious deep golden yellow. This will, in our opinion, prove to be one of the best of its colour yet raised. *C. V. Haworth* (H.T.), as shown, is a glorious rich crimson and one that will certainly be in large demand. *Sir E. Carson* (H.T.) is another fine crimson.



GOLD MEDAL ROSE CHARLES E. SHEA.

We shall soon have a collection of really fine reds and crimsons among the Hybrid Teas, which hitherto have been much wanted. *Miss Stewart Clark* is evidently a *Pernetiana* Rose, and, as shown, resembles *Constance*, but doubtless will be found distinct when compared in the garden. *David McKee* is a splendid deep yellow. *Clarice Goodacre* (H.T.) is a very lovely flower of distinct shades and perfect form, and, judging from what we have seen of this variety, it will prove to be very fine. A table decoration of *Isobel* displayed the lovely colouring of this fine single Rose to great perfection. In tint it resembles *Cherry Page*, and might be termed a single form of this fine decorative Rose.

THE TULIP AS A WORKMAN'S FLOWER

VISITING a church recently in my immediate neighbourhood—I reside in the South Yorkshire Coalfield—I was deeply fascinated by a magnificent colour blending of three large vases of *Darwin* and *Cottage Tulips*. The setting in each case was one of rapture, and my eyes feasted upon them in a spirit of enchantment. In addition to the glorious blend of colour, I was very much struck by the size of the flowers—they were equal to most show specimens—and I erroneously came to the conclusion that they had been imported from some Southern nursery. As a matter of fact, they had been grown within 200 yards of where they were. The warm atmosphere had caused them to open; hence their apparent extraordinary size. I was not the only person attracted by the beautiful sight, for there were many admirers, and numerous were the enquiries as to the grower, who during the next few days was so inundated with requests for Tulips that it was a matter of great difficulty for the grower to preserve the few required for the same purpose on the following Sunday. This circumstance prompted the present article, for I asked myself why the working classes do not more extensively cultivate this beautiful flower.

The Tulip is a flower of wonderful charm. A few such blooms as *Nauticus*, *Orange King*, *Mrs. Krelage*, *Bouton d'Or* and *Euterpe* arranged in a vase with a dark background produce a most charming effect. If the flowers are well grown and in good condition, it is a sight not to be forgotten. Against a light background such charming varieties as *Fra Angelico*, *Isis*, *Jubilee*, *Prince Eugen*, *Glory* and *Nigrette*, with corresponding shades added, make a magnificent display. Tulips thus artistically arranged generate strong desires to become the proud possessor of such stock.

I see no reason why such desires should not be gratified. Tulips are not expensive, are grown without much difficulty, are more easily kept free from weeds than most kinds of flowers, and the recompense for so small an expenditure, both in cash and labour, is large. I know of no flower so prolific in beauty requiring so little attention. A cottager possessing a bed of, say, 500 bulbs would be envied by all his neighbours. It is true the plants are subject to a few diseases, but the flowers do not bear any particular traces of their effects as does the foliage, so that such diseases are not an insuperable calamity.

Another item of importance to the working classes is that Tulips are a remunerative speculation from a monetary point of view. As but flowers

They are in great demand, and customers will not be denied. They will accept flowers of Tulips which in most species they would reject if in any way disfigured. As regards the colour breaks which Nature produces with exceptional variation, they are generally regarded as the most beautiful and attractive, and are usually preferred to the whole-coloured flowers.

The working man is educated by varied circumstances to overcome trials and difficulties, and his will power and perseverance are such as will help him to overcome any difficulty connected with Tulip-growing. What he needs most is encouragement and instruction to enable him to compete intelligently and successfully with his fellow cultivators.

GEORGE STOKES.

(To be continued.)

NEW AND RARE PLANTS

FIRST-CLASS CERTIFICATE.

Lælio-Cattleya Isabel Sander Blenheim Variety (C. Mossiæ Wageri × L.-C. Canhamiana).—A handsome, imposing-looking hybrid. Sepals



THE HANDSOME CAMPANULA PERSICIFOLIA
TELHAM BEAUTY.

and petals white with faint pink blush, tube white with feathered yellow throat, the frontal half of the heavily waved lip reddish purple. Sent by His Grace the Duke of Marlborough, Blenheim Palace.

AWARDS OF MERIT.

Lælio-Cattleya Isabel Sander Gatton Park Variety (same parentage as the foregoing).—Sepals and petals are pure white, lip crimson purple; very beautiful form. From Sir Jeremiah Colman, Bart., Gatton Park, Reigate.

Miltonia John Barker (parentage not recorded).—The whole flower is of rosy white, save for the distinctive butterfly-like mask of crimson which marks its centre. From Messrs. Sander and Sons, St. Albans.

Brasso-Cattleya Ilene Low's Variety.—Sepals and petals a warm tint of rose pink, lip heavily fringed pinky white, with golden yellow throat. From Messrs. Stuart Low and Co., Enfield.

Miltonia Isabel Sander Charlesworth's Variety.—Full white, with rosy-coloured, fan-like markings below and faintly rose-painted in the upper parts of the flower. Shown by Messrs. Charlesworth and Co., Hayward's Heath.

Streptocarpus Rose Queen.—A large and handsome rose-coloured form with white throat.

Streptocarpus Southgate White.—Pure in colour, save for a green tint in the throat. These were from Messrs. R. and G. Cuthbert, Southgate, N., and represent a marked advance in these flowers.

Leptospermum Donard Beauty.—Virtually a rosy crimson Nichollsii, and a welcome addition to hardy shrubs.

Escallonia Donard Seedling (langleyensis × philippiana).—The star-shaped flowers are pinky white, profusely distributed over a free-growing bush of glossy green foliage. A charming plant. These were from the Donard Nursery Company, Newcastle, County Down, Ireland.

Begonia Mrs. C. F. Langdon.—A magnificent double-flowered variety, coloured orange scarlet.

Delphinium Mrs. Shirley.—Pale heliotrope colour; semi-double.

Delphinium Mrs. A. J. Watson.—Double variety, coloured deep mauve; very handsome.

Delphinium Mrs. Colin MacIver.—Self-coloured heliotrope mauve; very distinct. The above are great gains in the heliotrope or allied shades in these flowers, and are most welcome additions to the race. Shown by Messrs. Blackmore and Langdon, Bath.

Cyananthus incanus leiocalyx.—This is likely to prove a gem for the moraine, being, as shown, very compact in growth. While very distinct, it is, we think, less beautiful and attractive than its congener, C. lobatus. Quite of a carpeting habit, the flowers are a peculiar indigo or violet shade, heavily bearded within, the segments of the corolla strongly recurving. It is obviously a profuse-flowering plant. From Mr. Reginald Prichard, West Moors, Wimborne.

Trollius King Cup (yunnanensis × chinensis).—Quite an intermediate hybrid, which embraces the yellow colour of the first named and the characteristically long, orange-coloured anthers of the latter. Shown by Messrs. R. W. Wallace and Co., Colchester.

Dianthus Gladys Cranfield.—A tall-growing single Pink having rosy lilac flowers.

Polystichum angulare divisilobum plumosum Perry's No. 1.—An exceedingly handsome form which will be self-descriptive to all Fern-lovers. These were from Mr. Amos Perry, Enfield.



THE NEW ESCALLONIA DONARD
SEEDLING.

Sweet Pea John Porter.—A pleasing variety having pale orange standards and rosy salmon wings. Shown by Messrs. Alex. Dickson and Sons, Newtownards.

Gentiana Przewalskii.—A very pretty trailing species with pale blue flowers. The plants had, however, been forced, hence were not quite in character. From Messrs. Piper, Bayswater.

Campanula persicifolia Telham Beauty.—Without doubt the finest herbaceous plant novelty of the meeting. Of remarkable stature, reaching upwards of 4 feet high, the huge single, pale blue bells are in proportion and almost treble the size of those usually seen. A great welcome awaits this handsome form. Shown by Messrs. Barr and Sons, Covent Garden and Taplow.

Rose Blush Queen.—The name is suggestive of a charming new Hybrid Tea. Shown by Messrs. Frank Cant and Co., Colchester.

Salvia warleyensis.—Of dusky purple colour and deeper purple calyx, relieved somewhat by the white protruding anthers. The pubescent stems are purplish and furnished with cordate-acuminate leaves. Shown by Miss Willmott, Great Warley.

Rose C. V. Haworth.—A fine glowing crimson scarlet Hybrid Tea which will be welcomed by all lovers of the Rose. From Messrs. Alex. Dickson and Sons, Newtownards.

The whole of the foregoing novelties were exhibited before the Royal Horticultural Society at the Holland House Show on July 4, when the awards were made.

A PLEA FOR MORE LILIES IN OUR GARDENS

HOW seldom one sees a garden with a really good collection of Lilies!" So once wrote the late Canon Ellacombe. And it is such a pity that it should be so, for, given a right understanding of their needs, they are really quite easy to grow, and will thrive even in a dirty smoky suburb where Roses refuse to bloom. All bulbous plants should be largely made use of in town gardens, for they very sensibly disappear below ground for practically the worst half of the year. From "the Fair Maids of February" and the "Crocus fires" one may have a long succession of Daffodils, Tulips, Irises and Lilies, without dabbling in any of the rarer or more difficult sorts.

The Lilies begin with *L. pyrenaicum*, which opens at the end of May as the late Tulips are fading. And the different varieties succeed each other all the summer, only ending with the magnificent *auratum* in September and October, a kingly climax to a wonderful procession.

WHEN TO PLANT.

The first and most important essential to success in Lily culture is to acquire and plant your bulbs at the *right time*. Nurserymen issue fascinating bulb catalogues, and the uninitiated take it for granted that the Lilies have only to be ordered and planted, like so many Tulips, in November. But here comes my point. A Lily bulb, with its delicate fleshy scales, each a potential parent, is an absolutely different thing from a Tulip or an Onion. It must *never* be dried off, *never* shorn of its delicate fibrous roots, and *never* kept out of the ground longer than is absolutely necessary for its removal from one home to another. To dry and clean up a Lily bulb and keep it on a shelf, or expose it in an open window for sale, is little short of murder. It is a matter of physiology. All Lily bulbs, having once reached maturity and flowered, renew themselves yearly in some way, either internally, like *excelsum*, or sideways, like *pardalinum*, or by offsets, like *giganteum*. Those in the first category for quite nine months of the year contain three generations—that is, the parent bulb which last flowered, the young bulb inside it to flower the following summer, and the seed-bud newly formed, which is to be the flowering bulb of the year later. The seed-bud is probably born within a very few weeks after the old flowers fade, and the bulb is

then too delicate to stand rough treatment. Therefore, if you want your Lilies to be *permanent*, buy and plant them certainly not more than a month or six weeks after they have flowered. Better still, if you see a clump of any good sort in full flower, and know that it has flowered in that position for at least *two seasons*, beg, borrow, buy or steal it then and there, for my own experience has been that those thus moved have done the best. If you order from a nurseryman, ask for your bulbs to be sent immediately after flowering, with their flower-stalks on, their fibrous roots undamaged, and all packed carefully in damp moss. Szovitzianum, the beautiful canary



PART OF A SPIKE OF LILIUM SZOVITZIANUM.

coloured Lily with scarlet anthers, flowers at the end of June. Eleven years ago I indulged in a dozen bulbs, and had them delivered, at my special request, early in August in this manner. Should this meet the eye of the specialist who supplied them, I should like him to know that "they have never looked behind them," but have been a source of unfailing joy to me. Some thirty fine flowering spikes are flowering beautifully as I write.

Home-grown bulbs, too, are by far the most satisfactory. They have had *no long journey*. That it is necessary to send abroad for most of them is quite a fallacy. Nearly all can be, and are, successfully farmed in many districts of England and Ireland.

A SELECTION OF FLAG IRISES

By F. A. BUNYARD, F.L.S.

THE number of the mis-called "germanica" Irises has increased so rapidly of recent years that it becomes necessary from time to time to review them as a whole and to discard certain varieties which the march of Progress has left behind. Having recently compared and selected a large number, it occurred to me that my notes might

have some interest for readers just now, when the plants move better than in the later months of the year. It will perhaps be convenient to take them in the section now generally adopted, and to begin with the *germanica* types.

In the dark blue colour *germanica* *atropurpurea* and *Trojana* are the finest for size and richness of colour. *Oriflamme* is well spoken of by some, but in my mind it is not anywhere beside the two named. *Crimson King* is a distinct reddish blue, and indoors shows its red tinge more clearly than in the border; it is a very rich colour. Of the white *albicans* and *Purity* would be my selection in the order named.

The *pallida* section is particularly beautiful, the broad, glaucous leaves being lovely in themselves and the flowers are mostly of soft and delicate shades. *Princess Beatrice* is still one of the most notable, with its large and sweet-scented flowers of a true lavender shade. A very beautiful variety sent from Shirley some years ago (now named *Rev. W. Wilks*) is a special favourite, and should perhaps even be placed first. In the rose pink varieties of this class *Rose Queen*, *Mrs. A. Grant* and *Paquerette* would be my selection in the order named. In the so-called *variegata* section, with yellow standards and red-brown falls, *Mithras*, *Ossian* and *Patti* are the three best in my collection, and there are not yet any, I fancy, to beat them. *King of the Iris* (or *Iris King*) comes in this group, but the standards are of a less clear yellow than the three named above. For size and distinctness, however, it should be included in every well-chosen collection. Of the pure yellows, *aurea*, with standards and falls of creamy yellow untouched with brown, stands also alone. *Mrs. Neubronner* is close, but not, I think, quite so good.

In the *plicata* section the Flag Iris has done what it can to become a "florist's flower," and

W. D.

THE "PETITS SOINS" OF A GARDEN

BY GERTRUDE JEKYLL.

very successful is the result. The pale lavender or blue edging of the white petals gives a charming daintiness. Here for long Mrs. Reuthe and Mme. Chereau have held sway; but a new-comer, Ma Mie, still, alas! "new and scarce," will, I fancy, take first place when it becomes better known.

The well-named squalens family, with their smoky yellow standards, has long been best represented by Jacquiniata; but a new-comer from France, Prosper Langier, is an improvement in every way, and will appeal to those who appreciate the rather subtle effect of mixed red and browns, flowers which require to be examined closely, rather than in bulk at a distance.

In the neglecta group Black Prince is now well known, and the rich purple of the falls contrasts well with the lighter violet of the standards. Monsignor, quite distinct in its colour scheme of pale and darker violet, is equally good, and I must put in a word for a great favourite of mine, Comte de St. Clair, which I presume belongs to this group. It is, however, rather different in form, as the standards stand out rather in the Kämpferi style and are veined with deep violet, while the falls are white. The whole effect is one of truly Gallic grace and neatness. With these few remarks I leave the subject and await the onslaughts of the experts.

THERE are many small matters about the flower garden that may easily be overlooked and neglected, especially at this time when labour is so much restricted. Some of them are so apparently trivial that at any time it would seem waste of labour to put a man upon them, and they would be difficult to indicate because they depend much on personal knowledge of the plant's needs and on tasteful arrangement. I call them *petits soins* because they have a distinct analogy with what we mean by that term in social life—little acts of sympathy and considerate kindness. Moreover, the doing of them just suits the capacity of the present writer, whose burden of years and painful sight make more active gardening impossible and a sitting job more welcome than a stooping one.

Several small things may be done for the front edges of the bit of garden given to the summer flowers that were put out in early June. Sitting on a low stool, 2 feet of the front edge is within reach, where—to the back and middle of the

border there are pale yellow Cannas, striped Maize and tall white and yellow Snapdragons—there is an irregular front edging of the fine pale yellow Calceolaria amplexicaulis mixed with that very useful plant, the variegated form of Mentha rotundifolia. It is a delightful combination; the splashing of the Mint is of a yellow white, which tones delightfully with the Calceolaria. If the Mint were left to itself and allowed to flower it would overpower its companion; it has to be topped two or three times. It has already been done twice, and is now ready for its third and last pinching. Quite to the front it is kept low, while the plants further back are trimmed so that they will stand from 10 inches to a foot high. The Calceolaria, which is grown from spring cuttings, was struck full early and became drawn and leggy—some is already in bloom. But it shows signs of some good breaks at the crown and on the lower part of the stem. It is carefully fingered and nicely arranged among the tufts of the Mint, and fixed in place with pegs, made



FLAG IRISES IN A SURREY GARDEN.

of Bracken last year. The blooming tips are taken out, as the time of the garden's best display is not yet, and their removal will encourage the lower breaks and the growth of side shoots. There are several of these groups, and, one after another, they receive attention. The pegs are then taken to another part of the same garden where there is a low bank rising from the path by a few courses of dry walling. The raised level is delightful to sit at. Here there are pink Ivy Geraniums—Mme. Crousse and the paler Baden-Powell; they have an informal carpet of Sweet Alyssum, some of it sown in place and some transplanted during the wet weather of a fortnight ago. The transplanted seedlings seem to be forming a strong middle bloom at the expense of the rest of the plant, so these central flowers must be cut out. The Geraniums are laid out into the best shape, some of them to hang over the edge, and they are pegged in place. This mixture of pink Ivy Geranium and Sweet Alyssum has been made for some years, with so good an effect that it may be confidently recommended.

Now the pegging is done for the moment, though some more may be wanted later in the case of Verbenas and Heliotrope, and the exercise of *petits soins* passes on to the August borders, where there is a careful colour arrangement of pink, white and purple with an accompaniment of grey foliage. Of this grey setting the most

several groups in this border, it can be let alone and allowed to flower, but its chief merit is the beautiful silvery grey foliage, which can be had at any height by suitable pinching. Some patches towards the middle of the border are shortened to about 2 feet where they frame the delightful pink of China Roses, some to a foot where they will accompany light and dark purple China Asters, and some, quite to the front, which are intergrouped with dwarf Ageratum, are kept down to 5 inches. This fine plant should be kept within bounds by yearly replanting, as it is what gardeners call a great traveller. These notes are only an example of some of the *petits soins* that can be given early in July. A constant succession of others will occur to the careful observer and true garden lover both earlier and later in the year.

BUDDING AND TRAINING A WEEPING STANDARD ROSE

BY CLARENCE PONTING.

THERE is an impression that budding Roses is a somewhat difficult operation for the amateur. This, however, is a fallacy when dealing with the formation of weeping standards, mainly because the chief

for permission to dig up such specimens. However, only those who have tried to lift such a Rose from the average hedge know the difficulty of performing this apparently simple operation. The suckers are always in the most inaccessible positions, making it almost impossible to get at the roots to dig them up. Even if such a stock is obtained, it usually consists of such "thongy" roots that budding cannot be practised the first season after planting. The reason for this is because sufficient fibrous roots will not have formed by budding-time to conduct the sap up the somewhat lengthy stem. It is vital to success in all budding operations to have the sap moving freely, and unless the roots are there to effect this, failure is bound to result.

Budding the Stocks.—About the middle of July to the first week in August is the best time for budding, after which the stocks quickly "dry up" and budding cannot be practised. By this time the three top buds will have produced growths of Briar some 2 feet long, but not really thick enough for the average amateur to work on. A skilled budder can do this, and this is advisable, as more buds can be inserted, which more quickly form a "head." The alternative is to put the buds into the main stem itself, a practice which English rosarians rather taboo. However, it is quite a practical method, and has proved highly satisfactory in the hands of the writer. Buds so inserted should be beneath the Briar growths.

The cultivator will naturally select the Rose which he intends to bud on to the stock. A Rose of rampant growth such as the Ramblers or the Rugosas should be chosen, these being the only ones really suited to the "weeper" method of training. Suppose that Dorothy Perkins is the Rose which is to supply the buds. Carefully examine the growths of this rambler on the pergola. The buds will be found at the point where the leaf-stalk joins the stem of the plant. These may be taken from either the side shoots or the new suckers produced from the current season's growth, and may be difficult to find. Some leaves will not have a visible bud, while others will be found which have plump little buds, which are exactly what is required for budding purposes. If these are not present, they can be formed by nipping out the point of a growing shoot, which will result in suitable buds about three weeks after this operation is performed. With a very sharp, thin-bladed knife or budding knife (the latter, although desirable, is not really a necessity) proceed to take out the bud by inserting the blade a thirty-secondth part of an inch deep in the bark and about half an inch above the bud, bringing it down behind the bud for another half an inch below the leaf-stalk. This will result in a very thin shaving of wood and bark, which will contain the germ of the future Rose tree. Do not cut off the leaf-stalk, as this is useful to obtain a hold while inserting the bud later. Now do another thing which most Rose books tell one not to. Place the buds as they are prepared in a glass of cold water until sufficient are obtained. This prevents the sap drying and makes a union with the stock almost certain. If the wood behind the bark can be removed without extracting the bud itself (a thing most amateurs invariably mismanage), so much the better; but it is not really necessary with such small buds, provided a clean cut is made through the wood and bark when cutting out the bud.



CARMINE PILLAR TRAINED ON AN OLD UMBRELLA. ONE YEAR AFTER BUDDING.

important plants are *Artemisia Stelleriana* at the angles and some edges, and the much larger *Artemisia Ludoviciana*. For the lower plant nothing much is needed but to cut out the bloom, for the leaves only are wanted in the garden picture. It is a most useful plant for grey effects, not so much known as it should be; it is much like *Cineraria maritima*, but has the merit of being much hardier. The taller *A. Ludoviciana* is a more recent introduction to gardens. Left to itself it grows 4 feet high or more, and has a spike of bloom of the ordinary Mugwort character, but lighter and brighter in colour. Among plants of the height of *Echinops*, of which there are

difficulty (that of abstracting the wood from the bud) is removed.

The Stock.—To obtain this class of trained Rose it is necessary to have a foster-parent upon which to bud the garden or rambler Rose. This is termed "the stock," and consists of an established plant of the common Dog or wild Rose with a good root system. Stocks may be obtained from almost any hedgerow in the country lanes, as these are not liable to be cut down annually as are the hedges on a main road. This method of obtaining stocks, although generally practised, is illegal; but no difficulty will be met with provided the farmer owning the hedges is approached

With the aid of a pair of steps proceed to insert the buds. This is done by cutting the bark of the main stem, where it is proposed to insert a bud, in the form of the letter T. This cut should be about the same length as the prepared buds, usually an inch long, by half an inch for the cut which forms the top of the letter T. As the bark on the stems of these stocks is rather thick, the cut should be made rather deeper than when budding on to side breaks. Next carefully lever up the bark at the sides of the T cut with the blade of the knife, which will expose the wood underneath. Push the lower end of the bud into the opening so made and press down as far as possible. If any bark should extend beyond the top of the T cut, it should be cut off flush at this point. Then carefully tie up the wound with some 18 inches of raffia or greentwist. Some six to eight buds should be worked on each head and side branches (if of sufficient substance), as one or two are certain to fail. The buds should, of course, be spaced all round the stem so that the buds will radiate in every direction when they commence to grow. That is all that is necessary as far as the budding operation is concerned. Should the weather remain dry for some weeks after budding, it is advisable to spray the head, say, twice a week, as this helps to keep the buds moist.

If the buds are alive and green six weeks afterwards, all will be well. The stock can then be lifted during October into a permanent position. The buds should appear exactly as they did when inserted, except that they may be a little plumper. The ties should not be undone until autumn if budding has been done in the main stem, as the buds do not join up quite so readily in this position as those worked on side branches. Some of the buds may have turned black and died, but this is not likely with all of them. If only one remains alive, this can be induced to form a head, but three are better.

After-Treatment.—The writer's method of securing the umbrella is to have a 1½-inch square stake (which has previously been treated with a rot-proof composition), in which is cut a groove large and deep enough to take the stick of the umbrella. Two holes are then made on either side of the stick with a bradawl at the top of the stake, and two more at the bottom of the umbrella stick. A piece of galvanised wire is then passed through each pair of holes, which forms a loop over the stick. The ends of the wires come out at the back of the stake, and are then twisted up tight with pliers and hammered flush with the pole. This method of fastening makes the "trainer" secure against the most violent wind. The post should be quite 1½ inches square, as the head when formed has to withstand considerable wind pressure in exposed positions.

Training the Growths.—The spring following the budding operation the buds will begin to develop and form the true head. When some 3 inches of wood have been made, all the Briar growth can be cut away above the cultivated Rose. On no account do this before, as the Briar growths are necessary to conduct the sap to the Rambler buds. If these growths were removed before the true Rose had commenced to make wood, the buds would push out before their time and probably become stunted by frosts or cutting winds.

Allow the buds to make quite 6 inches of growth before attempting to train them, otherwise they may be torn away from the stock in the attempt

to bend them. They are not very strongly united at this stage, and should be tied to portions of the framework as soon as possible to prevent wind blowing them out. This can be done very simply by ties fastened to any convenient portion of the umbrella, but the shoots are on no account to be bent, for this is merely a temporary and precautionary measure.

When the growths become a foot long (as they will in about six weeks from the commencement



CARMINE PILLAR AS A WEEPING ROSE.
THE SPRING AFTER BUDDING.

of growth), they can be untied and their training taken in hand. Carefully draw the shoots down evenly all over the framework, endeavouring to get the whole head nicely spaced out. This is important, as the whole of the future formation of the head depends upon this shaping of the tree. If a growth is not long enough to tie down to the umbrella without snapping, partially pull it down in the required direction by a loop of raffia tied to some part of the framework, completing the operation as it grows. During July and August

the head will form its first clusters of flowers. Experiments in which these blooms have been allowed to remain, and *vice versa*, showed little difference in the subsequent growth, so that they may be retained if desired, cutting out the flowering portions after blooming is finished. After this it is quite probable that new shoots will emerge from the base of the bud itself. These should be tied in as they become long enough.

The next spring simply cut off any weak shoots and train in the growths as they develop. After flowering, the older wood may be removed if sufficient new wood has been provided to take its place. Treatment for subsequent years is simply a repetition of the foregoing remarks, by which time the umbrella shape will probably have rusted and can be removed, for the head will then have taken a permanent umbrella or weeping shape.

These Roses pay for liberal treatment. A good mulch of fat manure applied in the spring, which should be covered with earth if neatness is desired, will provide all the food necessary to maintain healthy growth. Spraying to combat green fly and mildew will, of course, be necessary, as is common with all other Roses.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

Peaches.—With bright, warm weather these will be making considerable progress, and the early kinds will commence to change colour in the near future. Remove any leaves that cover the fruits, and young shoots may be tied back if they obstruct the sunlight. It will be advisable to see that the trees are free from insect pests prior to the ripening period.

Strawberries.—Directly the crop is cleared from the early beds, all the straw should be collected, the runners removed (unless any are required for making fresh plantations), and the beds made clean and tidy. Hoe the beds at intervals and keep them free from weeds.

Young Trees.—These must be examined from time to time, and during periods of drought give copious supplies of water, especially to trees planted against walls. A daily spraying overhead will be of considerable benefit.

The Kitchen Garden.

Celery.—Commence to earth up the early sorts, and prevent any soil from reaching the hearts of the plants. All weeds and decayed leaves must be removed from the trench, and, if the roots are dry, they must receive a thorough watering a day or two in advance. If the planting of Celery is not yet completed, no time ought to be lost in finishing such work.

Kales.—These must be planted at once, and the earlier beds of Brussels Sprouts, &c., may be hoed at frequent intervals.

Parsley and Chervil.—Make a final sowing of these, the former in a frame and the latter in any convenient part of the garden.

The Flower Garden.

Propagating Shrubs.—Many shrubs can be increased by cuttings from now onwards. The cuttings are usually chosen when the wood is partly ripe, and such plants as Spiræas, Lilacs, Roses and many others may be propagated by such cuttings. A cold frame containing sandy soil will suffice. Shading from strong sunlight will be necessary, and the lights should be kept closed, except for an hour or so early in the morning. When the cuttings are rooted, admit air freely.

Roses.—The dead blooms should be removed at least once each week, and the shoots of Tea and Hybrid Tea Roses may be shortened slightly to encourage a second crop of flowers. Aphid

has been rather prevalent, and mildew is sure to appear on a few plants. A solution of Cyllin Soft Soap and water is an excellent remedy for both evils if applied late in the afternoon or evening.

Plants Under Glass.

Hydrangeas.—Specimens that have finished flowering should have the old decayed flowers removed and the plants put into shape by a little judicious pruning and thinning. New growth must be encouraged, and a cool greenhouse is an excellent place for the plants during the next month, when they may be arranged outside. Feed them with liquid manure or bone-meal, and, if space permits, a top-dressing of rich soil will be beneficial. For producing plants with large single heads of flower, cuttings must now be inserted. Place them singly in small pots and plunge them in a propagating-frame until rooted. Harden them gradually until they can be arranged in a cool pit. Pot on as required.

Cyclamen.—These having been duly rested, they are in a fit condition for repotting. Remove a large portion of the old soil, and repot in a mixture of loam and leaf-mould. A cold frame protected from strong sunlight will meet their requirements for the present. Water must be applied sparingly, and vaporise the frame occasionally for green fly.

Fruit Under Glass.

Strawberries.—Plants for early forcing must be placed into 6-inch pots by the end of the month. Turfy loam with a little decayed manure and bone-meal added, made tolerably firm, is an excellent rooting medium. Good drainage is essential. When the operation is completed, stand the plants on a bed of ashes, and spray them occasionally when the weather is hot.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Autumn-Sown Cabbages.—The results of long experience in the growing of Cabbages for early spring cutting prove that in these Northern districts the correct season for sowing the seeds centres round the present week. Earlier sowings grow too freely and provide large plants with soft growth before winter, while if the sowing of the seeds is left much later the plants will be found too small for planting out at the proper time, and will not have got sufficiently established before the winter sets in. The selection of varieties has also a considerable influence on a successful crop. For several seasons past I have grown three varieties only, viz., Flower of Spring, Sutton's April, and Harbinger, and it is difficult to choose which is the better variety. The latter is perhaps the smaller and more quickly closing variety and ready for cutting slightly in advance of the others, but all are equally hardy and proof against shooting in the spring. The plants should be ready to be put out by the end of September or early in October, but it ought to be decided now where they are to be planted. The quarter from which the Onion crop has been cleared here is always followed by early Cabbages. No digging is done; the ground is simply cleared of weeds, lines drawn, and the plants dibbled in. If the ground is dry and the weather hot, the roots should be puddled before planting, afterwards giving a watering to each plant; this will ensure a good start. The hard ground enables them to make sturdy growth, which is not so easily harmed as is that of plants grown on soft, rich soil.

The Flower Garden.

Pegging Down.—Such plants as Petunias, Verbenas and Nasturtiums require pegging down as soon as they have made some growth. If they are to form masses in the beds, this must be done several times until the ground is quite covered. The material for this operation will be selected according to what comes readiest to hand. Those who have access to a hill of Bracken could not wish for anything better and easier prepared.

Alpine Phloxes.—These lovely plants should be propagated from cuttings annually, July and August being suitable months for putting in the cuttings, for if the old plants are retained until

they become too dense they are apt to damp off during the winter. *P. subulata* and its varieties *G. F. Wilson*, *nivalis* and *Vivid* are excellent subjects for the rock garden.

Sweet Peas.—These are now flowering freely, and to keep up a continuous supply of blooms with long spikes for the flower basket, they must not be allowed to form seed-pods. All the spent flowers should be removed at once. The plants should receive frequent waterings with liquid manure to keep them growing strongly; a top-dressing of moss litter manure from the stables is also of great benefit to them during hot, dry weather. Those who intend exhibiting will, of course, remove all the flower-spikes before they develop, selecting only those that will open at the correct time for the exhibition. The mistake of setting up a too rank growth by overfeeding must also be avoided, or the flower-spikes will be gross and the blooms too far separated on the stalks. Shading will also have to be provided for, as many of the finest varieties will not stand strong sunshine. A light tiffany capable of being easily removed is the best for this purpose; of course, erections for the protection of blooms for exhibition purposes will only be tolerated where enthusiasm for showing is strong, and would not have a place where tidiness is the first consideration.

Plants Under Glass.

Flowering Plants in the Conservatory.—All plants now in full flower, such as Geraniums, Fuchsias, Begonias and Lilioms, should be given some stimulant regularly to keep them in a healthy condition, as, their roots having by this time thoroughly permeated the soil in the pots, their sustenance depends entirely on what they receive from the watering pot.

Clerodendron fallax.—This handsome flowering plant is now showing bloom. The earliest batch to flower will furnish seeds for next season's supply. It is advisable to save one's own seed, as it is sometimes difficult to procure and always expensive.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

EDITORIAL NOTICES

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

ROSE AND SWEET PEA LEAVES (L.).—The leaves have probably been injured by the recent hailstorms,

but, if the diseased condition spreads, please send other leaves in a tin box.

ASTRANTIA CARNIOLICA (J. H. S.).—This is the name of the "quaint hardy perennial" which you send, and which may be increased either by division or raised from seeds. If the latter are freely produced this season, these would constitute the better mode of increase, since the divided plants, unless potted and framed to give them a start, are rather slow to re-establish themselves. Division of the root is best undertaken in early spring when the plant is restarting into growth. At that time it would be best to lift and wash away all soil from the roots, and so get a clear idea of how to divide with a minimum risk of loss. By potting the divisions and growing in a frame for a time they would more quickly recover. You may, however, purchase seeds cheaply and raise a stock in that way, while retaining your original specimen. *Astrantia* major is larger and with more rosy heads of flowers. There is also a form with variegated leaves.

LILIUM LONGIFLORUM A SECOND YEAR (Rockleare).—It is waste of time to attempt to grow and flower the bulbs a second year. It was so even before retardation of the bulbs was the vogue, and to-day the chances of success are decidedly reduced. We tried it on a large scale years ago when growing them by the thousand, and, finding outdoor and frame cultivation useless, resorted to the heated greenhouse in order to see what could be done. Here they were a fair success eventually, though the time and cost and the devoting of a heated structure—an essential in the case—for a couple or three years, the time required to again produce flowering bulbs from the remains of the first flowering, made the produce almost twice the price of that of good flowering bulbs. Your district might probably prove rather more favourable, though, remembering the millions of bulbs that must have reached these shores during the last quarter of a century, it does not leave much ground for hope. The only chance is a warm, dryish place, planted in a deep drill of sand—and inexhaustible patience.

LUPINES CHANGING COLOUR (E. W.).—We have never known Lupines to change in colour from blue to white. The only suggestion that we can make bearing on the point is that some seedlings which did not flower last year have done so now, and that they consisted mainly of the white-flowered kind. Possibly, too, some of the blue ones perished during the winter, and in this case the preponderance of white flowers might be accounted for. You give us no information with regard to the condition of the *Maréchal Niel* Rose, except that it has a profusion of leaves and no sign of flowers. Probably it is choked up with weak shoots, from which flowers cannot be expected, or the greenhouse may be too shaded for it. In pruning this Rose, weak and exhausted shoots should be cut out, thus encouraging vigorous flowering growths. An occasional stimulant is very helpful, especially if the plant is confined in a pot, but, at the same time, feeding must not be overdone.

ROSE GARDEN.

CHINA ROSES DEFORMED (Mrs. F.).—We believe the shoots you send bearing small foliage are the stock upon which the China Roses are budded or grafted. Probably you obtained your plants from France, and the nurserymen of that country employ *Rosa indica* as a stock for many Roses. While this stock may be all right for the South of France, it is of no use in England, as it is so very tender. If you care to take up a plant that is producing these malformed blooms and send it, we might be able to inform you if our surmise is correct.

TREES AND SHRUBS.

TREES ON THEIR OWN ROOTS (M. A. C.).—It is probable that you could procure the desired trees from Mr. A. Waterer, Knap Hill, Woking, Surrey, or from Messrs. Dicksons, Limited, Chester, but many Thorns and Pyrus are grafted or budded. Such trees give excellent results when grafted or budded, and usually bloom earlier in life than plants grown on their own roots. It is improbable that trees are sold from the Arnold Arboretum, though many are distributed by exchange. By writing to the Director you could find out, however, whether surplus plants are sold or not. We should have no hesitation in planting grafted or budded trees of *Crataegus*, *Pyrus*, &c.

JAPANESE MAPLES (A. H. R.).—Japanese Maples may be planted with advantage with *Azalea mollis*. *Acer palmatum purpureum*, *A. p. septemlobum*, *A. p. filicifolium* and *A. japonicum aureum* are all suitable varieties to plant. *Azalea mollis* may also be underplanted with dwarf Heaths, such as *Erica carnea*, *E. cinerea*, *Daboecia polifolia*, or *Calluna vulgaris* varieties. It is also a good plan to plant Lilies among *Azaleas*, leaving the bushes fairly wide apart so that the Lilies can be planted in clumps. The Peach leaves sent for examination are infested with red spider, the pest having doubtless been encouraged by keeping the house and plants too close and dry. Leaves so badly infested as those sent are certain to affect the health of a tree adversely, and the current year's shoots are likely to be weaker than usual. Syringe the tree or trees with a solution of soft soap water, into which half a pint of paraffin and a handful of sulphur have been added to every six gallons. The syringing should be repeated on alternate days for a week; then syringe well with clean water. Well ventilate the house, and keep a strict look-out for a return of the pest.

MISCELLANEOUS.

NAMES OF PLANTS.—*G. S.*—The Peach-leaved Bell-flower, *Campanula persicifolia*. The varieties grandiflora and maxima are better, and a very wonderful form was shown at Holland House. See page 345 of this week's issue. —*H. T.*—*Brunfelsia calycina*. Propagated by cuttings planted in sand and placed under bell-glasses in moderate heat. Now would be a good time, selecting young wood. —*Mrs. M. C.*—*Thalictrum minus adiantifolium*, a perennial that may be obtained from any hardy plant nursery. —*W. H. C.*—The strong-growing variety we believe to be one of the sempervirens Roses, such as Leopoldine d'Orleans, and the other belongs to Rosa alba, probably Mme. Legras. —*Colonel S.*—We much regret we cannot name the Rose. Probably it is a French variety not generally grown in England. —*H. M.*—Hybrid or seedling of *Campanula rotundifolia*. —*E. T. W.*—1, *Syringa Emodii*; 2, *Ceanothus Veitchianus*. —*Goulden.*—1, *Cratægus tanacetifolius*; 2, *Erigeron philadelphicus*; 3, *E. Rusbyi*.

SOCIETIES

HOLLAND HOUSE SHOW.

(Continued from last week.)

ORCHIDS.

THESE, as we mentioned last week, were on a less lavish scale than usual, though some ten exhibitors brought of their best. That first to hand was a superb group from Messrs. Charlesworth and Co., Hayward's Heath. Arranging a big centre of *Miltonias* Lyoth, spotted varieties of *Charlesworthii* and *Isabel Sander*, these were surrounded by *Phalenopsis Rimestadtiana*, *Odontoda Chanticleer* (one of the most brilliant we have seen), the glossy maroon-coloured *O. Brewii callistoglossa*, and others. *Epidendrum vitellinum* in orange scarlet was also shown.

Sir Jeremiah Colman, Bart., Gatton Park, Reigate, had the new *Lælio-Cattleya Isabel Sander* variety Gatton Queen, a delightful lot of *Disa Luna* (of clear rosy tone), *Cattleya Mossiæ Arnoldiana* (white), *Lælio-Cattleya Phoebe Colmanianæ* (orange and crimson) and the exceedingly curious *Nanodes Medusæ*, whose procumbent, flattish pseudo-bulbs have at their extremities roundly formed, maroon-coloured, heavily fringed flowers, the whole plant not more than 6 inches high. *Sarcocylus Cecilia* was another dwarf kind with pearl pink blossoms.

Messrs. Sander and Sons, St. Albans, showed some handsome *Miltonias*, notably *M. Hycana Colossus* and *M. Isabel Sander* variety Brilliant. *Cattleya gigas Sanderiana* was very fine. *Cirrhopetalum robustum* received a cultural commendation. *Aerides Houlettianum*, *Vanda Parishii* and several *Anguloas* were noted, A. Cliftoni being prominent.

In the group from Messrs. Stuart Low and Co., Enfield, an imposing lot of the free-flowering type of *Cattleya gigas* were seen. These were of exceptional colour richness. *Renanthera lmschootiana* (scarlet) and the pure white *Phalenopsis Rimestadtiana*, grouped together, were in fine contrast. *Dendrobium Victoria Regina*, *Cattleya Warneri alba* and *Lælio-Cattleya tenera* variety gloriosa, with rosy sepals and self crimson purple lip, were excellent. A big lot of rose and crimson.

Lælio-Cattleya Aphrodite dominated the group from Messrs. Mansell and Hatcher, Rawdon, Yorks, in which also *Masdevallia Harryana*, *Miltonia vexillaria virginale* and *Lælio-Cattleya Cora* (yellow sepals and crimson lip) were noted.

In that from Messrs. J. and A. McBean, Cooksbridge, *Odontoglossum Hye de Crom* was a great feature. There were many plants and much variety, one of crimson maroon colour, gold lipped and gold tipped petals, and bearing fifteen handsome flowers, being grand. Others were of lighter crimson hue, varying from palest primrose to almost white in the markings. *O. Leviathan* and *O. eximeum Xanthotes* (white) were very fine.

A magnificent and well-flowered *Epidendrum prismatocarpum*, 5 feet across, from Mr. F. Menteith Ogilvie, Oxford, was awarded the Lindley Medal.

Messrs. Armstrong and Brown, Tunbridge Wells, showed *Miltonia J. Gurney Fowler*, the finest yet raised.

SWEET PEAS.

At one of the entrances to No. 2 tent Messrs. E. W. King and Co., Coggeshall, Essex, had a grand exhibit of this fragrant annual, embracing all the better novelties and standard sorts of to-day. A series of columns and a table of vases made a unique display.

Extremely good was the large and comprehensive table group of this fragrant subject from Messrs. Dickson, Belfast. Masses of the better sorts were lightly and artistically disposed in elegant vases and stands, and the group formed a welcome piece of colour in the third tent. John Porter is a very promising salmon orange new Sweet Pea, as also is *Hawmark Pink*, a beautiful true pink-margined flower.

Messrs. S. Bide and Sons, Limited, Farnham, Surrey, had a very large representative group of Sweet Peas in wonderfully fresh and clean condition. The colours were very clear and distinct, and the blooms set up in vases and stands in a very dainty and attractive style. Lady Hunter (soft apricot), Farnham Lavender (lavender), and Ruth Bide (a beautiful cerise pink) were good novelties.

Robert Sydenham, Limited, Birmingham, had an attractive series of vases of the more popular Sweet Peas, which subject this firm has done so much to popularise.

Mrs. Smethurst, Lady Fisher and Lilian were noteworthy varieties.

A distinctly taking group of considerable dimensions was shown by Messrs. John Piper and Sons, Bayswater, W. Beautiful Sweet Peas, clean, fresh and of good colour, characterised the whole of them, and they were charmingly displayed. General Townsend, Prince Albert, Mrs. Hugh Wormald and Marvel were novel and beautiful.

CARNATIONS.

Malmaison and other Carnations were well shown by Messrs. W. Cutbush and Son, Highgate and Barnet, all set up in a most attractive way.

As usual, Messrs. Stuart Low and Co., Bush Hill Park, Enfield, Middlesex, had arranged a group of cut Malmaison and other Carnations, set up in vases, stands and a variety of other devices to display this subject attractively. The finish of the group with Ferns and other foliage left nothing to be desired.

A small group of Bedford Belle, a useful salmon pink Carnation, was shown by Messrs. Laxton Brothers, Bedford. This is a variety of promise.

Mr. James Douglas, Edenside, Great Bookham, at the entrance to No. 1 tent staged a very fine collection of his well-known border Carnations. They were a splendid series and represented the better sorts of to-day. Good and distinct colours were beautifully shown, and there were colours and quality to suit the taste of the most fastidious.

A table group, carried up very high at the back, enabled Mr. A. F. Dutton, Iver, Bucks, to show Carnations of high quality in a most impressive manner. Baskets, vases, bowls and other receptacles were filled with grand blooms most artistically. Gorgeous, Triumph, Mary Allwood, Mrs. C. W. Ward, Scarlet Glow and Lady Meyer were a few of the good things in this group.

A table group, largely composed of Malmaison Carnations, came from Mr. Charles Turner Slough. Princess of Wales was very good.

STOVE AND GREENHOUSE PLANTS.

The new Ivy-leaved *Pelargonium Radiance* was well shown by Messrs. Cutbush and Son, Highgate and Barnet, and in conjunction with *Hydrangeas*, *Fuchsias* triphylla, *Streptocarpus*, *Coleus* and other subjects made a pretty group.

Messrs. John Peed and Son, West Norwood, S.E., as usual, staged a fine group of *Caladiums* in charming variety, and being fronted with a fine strain of *Streptocarpus*, this firm made a group worthy of their fame.

An exceedingly beautiful group of Ferns and kindred subjects was set up by Messrs. H. B. May and Sons, Upper Edmonton, the front being finished off in a series of semi-circular frontal groups, some containing British and others greenhouse Ferns. A splendid effort.

"Magnificent" aptly describes the group of double-flowered tuberous *Begonias* exhibited by Messrs. Blackmore and Langdon, Twerton Hill, Bath. The plants were the acme of perfection in these flowers; their colours were glorious and diverse, and their form exquisite. *Crystabel Spry* is a flesh pink kind of great refinement.

One of the most attractive groups of hardy Ferns set up for a long time past was shown by Mr. Amos Perry, Enfield. Most attractively were the handsome specimens staged, and the group contained many individual specimens of great merit. Specially beautiful was *Polystichum angulare divisilobum plumosum* Perry's No. 1.

A goodly number of *Zonal Pelargoniums* in bunches, set up in vases, were shown by Mr. Vincent Slade, Taunton. *Scarlet King*, *Pride of the West* and *Prince of Wales* were good singles.

A small collection of single, double and semi-double *Zonal Pelargoniums* was set up by Messrs. Jarman and Co., Chard. Quite a number of good things were included in the collection.

Show and fancy *Pelargoniums* in pots, arranged in a pretty way in round baskets and covered with moss and interspersed with foliage plants, were shown by Messrs. W. J. Godfrey and Son, Exmouth. Some of the plants were very freely flowered, and their quality was first class.

Gloxinias and *Streptocarpi* were exhibited in the form of a table group in a groundwork of Ferns and with a background of other foliage plants. *Gloxinia Distinction* was a very novel flower, and the *Streptocarpi* were well represented by white, pale mauve, deep stripes and blue colours. This exhibit came from Messrs. R. and G. Cuthbert, Southgate, N.

Dwarf Japanese trees were exceedingly well shown by the Yokohama Nursery Company, Limited, Craven House, Kingsway, W.C. The dainty dwarf specimens were shown growing in a variety of receptacles, all very interesting.

Double *Begonias* were shown in a table group by Messrs. John Peed and Son, West Norwood, S.E. Both the colours and forms were varied.

Messrs. T. S. Ware, Feltham, Middlesex, again excelled in the superb quality of their *Begonias*. The flowers were in the pink of condition, and their colours were charmingly varied and pleasing. The Hon. Mrs. Maurice Glyn, Miss Ethel Deane, Mrs. R. Caulfield and Robert E. Hay were superb sorts.

Stove and greenhouse plants in great variety were shown by Mr. L. R. Russell, Richmond, Surrey. The wonderful array of subjects in this table group, which was very tastefully set up, afforded considerable interest.

Cacti in limited variety were shown by Messrs. John Piper and Sons, Bayswater, W. Both large and small plants were exhibited, and a plentiful array of *Echinocactus arizonicus* predominated.

FRUIT AND VEGETABLES.

These were not so plentifully shown as on some former occasions, though the exhibits were of a high standard of excellence.

In the fruit section Messrs. Richmond and Sons, Limited, Royal Nurseries, Feltham, showed a remarkably good lot of pot-grown Peaches, Nectarines, Plums, Grapes and other fruits, the former, approaching ripeness, being most attractive. Some seventy-five trees were staged, Peaches *Peregrine* and *Duke of York* in fan-trained and pyramidal specimens finding the most favour. Early Rivers Nectarine was also fine. Plums *Denniston's Superb*, *Jefferson*, *Green Gage*, *Coe's Violet* and *Oullin's Golden* all carried fine crops of fruit. Grapes, Figs, Gooseberries and Pears were also on view.

Messrs. Laxton Brothers, Bedford, showed an excellent lot of Strawberries. The Admiral King George, a big, handsome fruit of fine flavour; Laxton's Bountiful, a fine round fruit; and The Laxton, a finely flavoured dark sort, were among the best. Royal Sovereign was freely shown. Laxton's Perfection Red Currant is a great cropper, as the many fruiting examples demonstrated.

Messrs. George Bunyard and Co., Maidstone, showed a good collection of pot-grown Cherries, *Noir de Schmidt* (very dark), *St. Margaret's*, *Napoleon Bigarreau*, *Governor Wood*, *Black Circassian* and *Noir de Guben* (large dark red) were among the more notable in a particularly good lot.

SUNDRY.

The Molassine Company, Limited, of Greenwich showed their new food for soil bacteria, Rito, which attracted a good deal of attention. This article has only been on the market for about four months, although we understand that some hundreds of tests have been made with it during the previous twelve months, with very gratifying results, horticulturists and market gardeners especially being most enthusiastic about it. One plot of Potatoes treated with Rito in the open produced 50 per cent. more than the untreated plot, and in the case of *Scarlet Runner* Beans the yield was even greater, the treated plot producing 31lb. 2oz. against 9lb. 7oz. on the untreated plot. This fertiliser has also been used with wonderful success for Palms, Ferns, *Cinerarias*, *Lilies*, *Chrysanthemums*, and many other plants. Extensive experiments are now being conducted in various parts of the country with a view to proving its suitability as an agricultural fertiliser, and, so far as can be seen at present, the outcome of these tests will be an entirely satisfactory one.

ROYAL AGRICULTURAL SHOW AT MANCHESTER (HORTICULTURAL SECTION).

THIS section of the Royal Agricultural Show at Manchester proved one of the most popular on record, and the system adopted by the genial and esteemed secretary, Mr. Peter Blair, was much appreciated by the exhibitors generally, all classes putting up excellent displays to acquire the premier position. The exhibits of *Begonias*, *Roses*, *Sweet Peas* and fruit trees in pots were excellent and much admired by the general public, the attendance being above expectations.

For a group of miscellaneous plants, Messrs. Cypher secured first honours, the arrangement comprising an excellent collection of tasteful hues, consisting of a well-set-up background of Palms, *Crotons*, *Lilium longiflorum*, and other well-placed foliage and flowering plants; while the foundation was so tastefully arranged that the whole proved a glorious combination of vivid attraction. Mr. W. H. Holmes, Brampton, Chesterfield, secured second prize with a nicely arranged group practically on the same lines as the first-prize exhibit, using well-grown and bright foliage subjects, as *Caladiums*, *Crotons*, *Dracenas*, and other stove and greenhouse plants, with Orchids as dot plants, which proved a worthy asset to this exhibit.

For a collection of *Delphiniums*, Messrs. Blackmore and Langdon of Bath excelled on this occasion by arranging a most magnificent group of these handsome border flowers, obtaining awards of merit for Mrs. A. J. Watson and Mrs. Colin MacIver, varieties possessing infinite beauty. The well-formed flowers, which are borne on a noble spike, are shades of electric blue and mauve, novelties of exceptional rarity. Robert Cox, Glory, Lavanda, The Alake, Queen of Bath, Lord Lansdowne, Lilacina and many other beautiful varieties made up a display of mauve and blue, a general consensus of opinion being that they were the finest ever seen.

For a group of hardy plants, Bamboos, &c., Messrs. Artindale and Son were first, obtaining a nicely balanced effect by using Bamboos, *Acers*, *Astilbes* and other semi-aquatic plants as a background, flanked by *Liliums*, *Grasses* and herbaceous flowers, the water cavity being lightly arranged with *Water Lily* blooms, finishing with a choice selection of alpine; a pretty and well-placed exhibit. Mr. Gibson, Leeming Bar, was second, using unsparingly large bunches of herbaceous flowers, an outstanding feature being a large bunch of *Lupinus Ruby King*, this securing a card of merit.

For a collection of hardy perennial plants and cut blooms, Messrs. Brown and Son, Peterborough, secured the premier award with a tasteful setting of choice bunches of herbaceous flowers, *Lilies* and *Eremuri*, in which the interspersing of dark-coloured *Delphiniums* gave a harmonious whole, the light and artistic arrangement bestowing much credit on this firm's abilities. A beautiful border Carnation named Mrs. George Lovelock, colour satiny mauve, of large size and clove-scented, was much admired; also a perennial *Verbena*, colour vermilion, was on view and much sought after.

For a collection of cut sprays of Carnations, Mr. C. H. Taudevin, Willaston, staged a nice, freshly coloured lot of popular varieties, including *Carola*, *Mary Allwood*.

Mikado, Snowstorm, Mrs. Raphael, Rosette, Harlequin and others, the first prize being worthily awarded.

For a collection of cut Roses, Messrs. Brown and Son excelled in this particular competition, arranging a most fascinating lot of blooms embracing all those art shades in Roses now so much sought after, the adjudicators being strong in their praise of this exhibit. Mrs. Rosalie Winch, Irish Fireflame, Sunburst, Mme. Edouard Herriot, Lady Mary Ward and other varieties were most beautiful. The Rev. —. Rees, Helpringham Vicarage, Sleaford, was second with small but nice blooms.

For a collection of Sweet Peas, Mr. Robert Bolton was first, exhibiting a nicely balanced and well-arranged colour effect, an admired composition of new and choice varieties. Mrs. Hardcastle Sykes, Constance Hinton, R. F. Felton, Jean Ireland, Ivory King, Cheerful, Margaret Atlee and Bolton's Scarlet were especially noticeable. Mr. J. Stevenson, Wimborne, was second with a unique collection, consisting mostly of varieties of his own raising and varieties of marvellous beauty, Victory, Charity, Warrior, Peace, Hope and Honour Bright being most conspicuous; a pleasing exhibit. Mr. W. Bond, Formby, was third, and Mr. R. Wright fourth, both competitors having a nice selection of popular sorts.

The King's Acre Nurseries, Limited, Hereford, staged a well-grown collection of fruit trees in pots, nicely coloured specimens of Nectarines, Peaches, Apples and Pears standing out as a feature. Awarded large gold medal.

Messrs. Alex. Dickson and Sons staged a marvellous collection of cut Rose blooms, embracing every colour and shade; large gold medal. The firm also secured a large gold medal for a collection of Sweet Peas, such as is seldom seen. All the choicest varieties were in evidence, including President, Ivanhoe, Hawlmark Cream, Mark's Tey, Lillian, Fiery Cross, Constance Hinton, Orchid and Barbara.

Messrs. Waterer, Sons and Crisp, Bagshot, staged a most pleasing group of Kalmias, Rhododendrons, Golden Box, Abies pungens glauca and many choice conifers, the group being well arranged and much admired. Large gold medal.

The Studley Horticultural College gained a large gold medal for a fine collection of Peaches and vegetables. It was a nice, well-set-up exhibit.

Messrs. Dobbie and Co. obtained a large gold medal for Sweet Peas, a well-arranged and much-admired exhibit comprising Dobbie's Cream, Dobbie's Orange, Jean Ireland, Tea Rose, Old Rose, Miss Burnie, Thomas Stevenson, Melba and other giant forms.

Messrs. Stuart Low, Jarvisbrook, Sussex, gained a gold medal for a miscellaneous arrangement of cut blooms, Carnations, Roses and Orchids.

Messrs. W. J. Godfrey and Son, Exmouth, staged a worthy exhibit of Pelargoniums, Canterbury Bells and Solanums. The plants were of dwarf habit and had large blooms, well coloured, and were profuse flowering. Large gold medal.

Messrs. Artindale, Sheffield, staged a nice collection of Violas in many everyday varieties, thoroughly sustaining the reputation of these specialists. Silver medal.

Messrs. Jarman and Co., Chard, filled a space with Geranium and Rose blooms. Medal awarded.

Messrs. R. H. Bath, Wisbech, had a group of Delphiniums and Paeonies in choice varieties; a beautiful exhibit. Medal awarded.

Messrs. Cant, Colchester, had a nice arrangement of cut Roses, well set up and consisting of many new and choice varieties. Gold medal.

Messrs. Bruce, Chorlton, deservedly obtained a large gold medal for a noteworthy and artistically arranged group of semi-aquatic subjects and Dwarf Polyantha Roses, with a foreground of Sarracenias, consisting of many quaint and choice varieties; a unique and well-constructed group.

Messrs. G. Broadhead and Son obtained a gold medal for their eminent skill in the construction of a small rock garden, placing the alpine plants to great effect over the whole, the exhibit being greatly admired by the general public.

SCOTTISH HORTICULTURAL ASSOCIATION.

THE monthly meeting of the Scottish Horticultural Association was held in the hall, 5, St. Andrew Square, Edinburgh, on the evening of July 4. There was a good attendance, presided over by Mr. W. G. Pirie, The Gardens, Dalhousie Castle. The paper of the evening was on "Some Scented-leaved Plants," and was given by Mr. Charles Comfort, The Gardens, Broomfield, Davidson's Mains. It was illustrated by a number of specimens of plants which have the virtue of fragrance, and gave an excellent exposition of this class of plants, many of which are so useful and popular. An interesting note was given by Mr. A. D. Richardson, the secretary of the association, on the Golden-leaved Elder. In this Mr. Richardson pointed out that the Golden Elder, generally attributed by works on such subjects to be a variety of our common Elder, *Sambucus nigra*, is in reality a variety of the Canadian species, *Sambucus canadensis*. The point, which is an interesting one, was admirably put by Mr. Richardson in his short note.

HIGHCLIFFE GARDENERS' ASSOCIATION.

A VERY pretty exhibition of Sweet Peas, Roses and vegetables was held on Monday, July 3, by the members of the above society. In the evening Mr. E. Griffin, gardener to the president, E. Huntly Hooper, Esq., J.P., gave a lecture on "Hardy Climbing Plants."

Mr. Griffin was the successful exhibitor in the class for six vases of Sweet Peas; he had Royal Purple, Hercules, Wedgwood, Dobbie's Cream, Rosabelle and

Norvic. Mr. W. Hodson, gardener to Mrs. Clemson, Hordle, was second; and Mr. W. Foskett, gardener to Mrs. Ubsell, Great Ballards, New Milton, third. Mr. Hodson had the best lot of Roses, Lady Pirrie, Mrs. J. Laing and Catherine Mermet being very fine. Second, Mr. Foskett; third, Mr. W. Weaver, gardener to Major Edward Tinker, Chewton Glen, Milton.

Mr. Hodson had the best six dishes of vegetables; he staged Onion Ailsa Craig, Cauliflower Magnum Bonum, Potato Carisbrooke Castle, Pea Up-to-Date, Carrot New Red Intermediate and Tomato Perfection.

BOURNEMOUTH GARDENERS' ASSOCIATION.

BY kind permission of Mrs. M. S. Cassel the members paid a visit to the gardens of Branksome Dene, Bournemouth, on Tuesday, July 4. They were met at the lodge entrance by Mr. C. Stewart, the able and courteous head-gardener, who conducted them round the gardens and pleasure grounds, which extend to eighty-five acres. At one point they witnessed a battle between a half-grown rat and a male blackbird. They fought fiercely for about half a minute, then disappeared from view round a shrubbery. Neither of the combatants seemed to be winning up to that stage, and neither was again seen.

There are beautiful sea and land scapes from the mansion and grounds. Near the cliff edge, fully exposed to the strong winds from the sea, and growing in drift sand and peaty soil, *Rosa rugosa* was seen to be thriving and flowering freely. The St. John's Wort and Gaultheria were flourishing on dry banks, in the shade and under Fir and other trees. There is a very fine specimen of *Cedrus plumosa* in a glen, growing to a height of nearly 60 feet. There are only three or four known specimens in this country. It appears to be a variety of *Cedrus Deodara*.

Some rather poor grass land was ploughed up early this year and planted with Potatoes. The varieties King Edward VII. and What's Wanted, a maincrop sort, were doing well. One ton of soot per acre had been given as a dressing, but no manure. The turf portion was buried and the Potatoes planted wide apart. The vegetable crops generally and Muscat of Alexandria Grapes and Perpetual Carnations were in fine condition.

The members much appreciated their visit and the courtesy extended to them by Mrs. Cassel and Mr. Stewart.

WINDSOR, ETON AND DISTRICT HORTICULTURAL SOCIETY.

THIS society was distinctly unfortunate with the twenty-fifth annual show, which was held on the slopes of Windsor Castle on June 24. The usual date, the last Saturday in June, generally proves right for Roses, which are the principal flowers; but this year it was a week or more too early for most growers, and the very heavy showers of rain were responsible for a poor attendance.

The King's Cup, for forty-eight cut Roses, distinct, was won by Messrs. D. Prior and Son, Colchester, with a splendid collection, considering the season. The popular Hybrid Tea varieties predominated, and all the blooms were fresh, of full size and delightful colouring. Special mention must be made of Bessie Brown, Mrs. Walter Easlea, Mrs. George Norwood, Cynthia, Mrs. W. J. Grant, Mrs. Hugh Dickson, Medea and Mrs. Amy Hammond. Messrs. B. R. Cant and Co., Colchester, who won the cup three years in succession, had to be content with second place, though second in a class of eight competitors is no mean honour. They showed a monster bloom of Mrs. Joseph Welch and very beautiful examples of Souvenir de Maria de Zayas, Edgar M. Burnett, Edward Mawley, Mrs. W. J. Grant and Auguste Comte. Mr. Elisha J. Hicks, Twyford, who was third, included an enviable bloom of C. E. Shea, his new satiny rose pink Hybrid Tea, which, also shown in other classes, was decidedly the Rose of the show.

Tea and Noisette Roses generally showed their dislike for the unseasonable weather, though there were many fragrant and beautiful flowers. The best eighteen by Mr. Henry Drew were especially clean and good. His very best were Auguste Comte, Mrs. Mawley, Souvenir de Pierre Notting, Comtesse de Nadaillac, Mrs. Foley Hobbs and Maman Cochet. In the second-prize collection, from Messrs. D. Prior and Son, there was a charming bloom of Mrs. Herbert Stevens without a tinge of colour, while the examples of White Maman Cochet and Mrs. C. Forde were also very fine. Mr. E. J. Hicks was third.

In the class for twelve varieties, three blooms of each, there was a close competition for first place, which was won by Mr. E. J. Hicks, who had splendid trios of Augustus Hartman, C. E. Shea, Caroline Testout and Mrs. George Norwood. Messrs. D. Prior and Son were second, and their outstanding sorts were Margaret, Lady Ashtown and Lohengrin.

RICHMOND HORTICULTURAL SOCIETY.

THE forty-first show of the above society was held in the Old Deer Park on Wednesday, June 28. There was no show last year, but on the strong representations of the president, who felt that every incentive should be given to the cultivation of vegetables, and that as the Royal Borough boasts of one of the best allotment gardens in the kingdom, it would be right and proper to have the show and he would be happy to give additional special prizes for collections of vegetables, the committee decided to hold the show. Their enterprise deserved better results, as the weather was only moderately fine, and the storms of the previous few days had damaged many would-have-been exhibits.

Richmond is famed for the high quality of its Rose exhibits, but very few growers were able to stage their blooms. Messrs. D. Prior and Son, Colchester, were the only exhibitors of forty-eight varieties, three blooms of each, but it was an especially good contribution, and they worthily received the Gunnersbury Park Challenge Cup and first prize. The collection was chiefly of Hybrid Tea Roses, and of these the rows of Mrs. George Shawyer, Caroline Testout, St. Helena, Lieutenant Chauré, La France, Mme. Jules Graveaux, Comtesse Icy Hardegg and Mrs. Amy Hammond were very beautiful, showing but faint signs of the stress of weather. Messrs. Prior were fairly easy winners of the first prize for twelve Tea Roses of any one variety, with splendid blooms of Mme. Jules Graveaux.

As in the big class, there was only one entry for twenty-four varieties, three blooms of each, and here Mr. E. J. Hicks, Twyford, was awarded first prize for an attractive collection. The outstanding varieties were Mrs. W. E. Miller, Caroline Testout, Augustus Hartman and Edith Part.

The Marquis of Ripon was awarded a silver-gilt medal for an excellent collection of ripe Melons, and won first prizes for Cherries, Cabbages and Cucumbers.

Mrs. A. Robinson, Carshalton, was the chief prize-winner in the ladies' classes with very tasteful decorations and buttonhole flowers.

During the afternoon flowers and plants were sold in aid of the funds of the Red Cross Society and local military hospitals, and the committee entertained 100 wounded soldiers.

BOURNEMOUTH ROSE AND SWEET PEA SHOW.

ON Tuesday and Wednesday, June 27 and 28, a very fine exhibition of these popular flowers was held in the spacious pavilion of the Winter Gardens. The whole of the accruing profits are being devoted to the Mayor of Bournemouth's War Fund. It was a decided success from every point of view, the public patronising it in large numbers. Sir Merton Russel Cotes of Bournemouth sent a valuable oil painting, and Miss Agnes Rooper a charming water-colour, both to be sold by auction for the benefit of the fund. The Right Hon. the Earl of Carnarvon, Highclere Castle, Newbury (gardener, Mr. W. Blake), sent Grapes, Strawberries and Figs for the same purpose. Noteworthy non-competitive exhibits were those from Mr. M. Prichard, who had an extensive collection of herbaceous flowers; Messrs. S. Bide and Sons, Limited, Farnham, Sweet Peas; Messrs. G. Watts and Sons, Limited, Bournemouth, and Mr. H. T. Sissons, Bournemouth, Roses; and Messrs. W. H. Rogers and Sons, Red Lodge Nurseries, Southampton, Roses and herbaceous flowers.

COMPETITIVE EXHIBITS.

The best single vase of Roses was staged by Mrs. J. Cooper Dean, Bournemouth; the second by H. W. Ellis, Esq., Northleigh, Wimborne (gardener, Mr. J. House).

Mrs. Clemson, Hordle (gardener, Mr. W. Hodson), staged the winning six vases of Hybrid Tea or Hybrid Perpetual Roses, the varieties being Jeannie Dickson, Mme. Abel Chatenay and Lady Waterlow. J. J. Lane, Esq. (gardener, Mr. J. Hayward) won second honours.

All except one exhibitor were disqualified in the class for twelve Roses, Tea or Noisette, owing to their including blooms of other sections.

Mr. Hodson won in the class for three vases of Ramblers, distinct; second, the Rev. H. C. Palmer (gardener, Mr. J. Watts).

Mr. House scored with a lovely basket of Roses, Mr. V. de C. Hughes, Wimborne, being a close second.

Mrs. J. Cooper Dean had the best bowl of Roses, and was closely followed by Mr. D. Lorrimer, Bournemouth.

In the class for a display of Sweet Peas on a table space 10 feet by 4 feet, Messrs. S. Bide and Sons, Limited, Farnham, were the winners, and also in the class for six vases, distinct, having in very fresh condition Ruth Bide, Mrs. Breadmore, President, R. F. Felton, Constance Hinton and Royal Purple. Second honours went to Mr. Hodson, who was an exceedingly close runner-up.

The bouquets of Sweet Peas were numerous and charming. Mr. Hughes was first and Messrs. G. Watts and Sons second.

The special prize offered by Messrs. E. Webb and Sons, Limited, Stourbridge, for six bunches of Sweet Peas was won by Mr. Hodson; second, H. A. Pearson, Esq. (gardener, Mr. J. Sheldon).

For three novelties raised in and after 1914, Mrs. M. Fletcher, Wimborne (gardener, Mr. R. Cox), won first honours, the second going to Messrs. S. Bide and Sons, Limited.

Mr. Cox again scored in the class for three vases of pink Sweet Peas, distinct, with Mrs. H. Sykes, Hercules and Mrs. Cuthbertson.

The Park Nurseries won with a lovely basket of Sweet Peas; second, Messrs. S. Bide and Sons, Limited.

NON-COMPETITIVE EXHIBITS.

Gold Medals.—Mr. Maurice Prichard for Paeonies, Delphiniums and Campanulas; the Earl of Carnarvon for Grapes, Strawberries and Figs; and Mr. H. T. Sissons for Roses.

Silver Medals.—Mr. Hughes for Tomatoes, Cucumbers and Delphiniums; The Park Nurseries for tuberous Begonias and Gloxinias; Messrs. S. Bide and Sons, Limited, for Sweet Peas; Mr. R. Chamberlain for floral designs; Messrs. G. Watts and Sons, Limited, for Roses and Tree Carnations; Messrs. W. H. Rogers and Sons, Limited, for Roses and herbaceous flowers; Mr. H. Haskins for Roses; and Mr. Arthur Radmore for Roses.

THE GARDEN.

No. 2331.—VOL. LXXX.

JULY 22, 1916.

NOTES OF THE WEEK

THE prohibition of all importations of foreign plants and bulbs, except those which have been actually produced in the countries of our Allies and for which certain exceptions have been made, must necessarily make a considerable difference both to dealers and to purchasers. The ordinary Dutch Hyacinths and Crocuses will be conspicuous by their almost entire absence. Early Tulips will be, comparatively speaking, "few and far between." Spanish Irises, English Irises and many of the smaller fry will be uncommonly scarce. Even the supply of the cheaper Daffodils and the more popular of the late-flowering Tulips, both Cottage and Darwin, will not be as plentiful as in normal seasons. Purchasers may be divided into the wise, who buy at their earliest opportunity; and the foolish, who put off and off, until at last, when the order is sent, the reply comes back, as it assuredly will, "Too late. Sold out." It must be so if there are not enough to go round. Readers are strongly advised to make up their minds as to their requirements as soon as possible, and to order early. It is always well to do so, but this year it is more necessary than ever.

Cultivating Late Peas.—The latest sowings should now be ready for staking. These require careful attention in dry weather, as if allowed to get too dry at the roots the crop may be a failure. It is a good plan to give them a top-dressing of short manure for a space of 2 feet on each side of the lines, and a good soaking of water through this. If a vigorous growth is kept up, there is not so much danger of an attack of mildew, which so often ruins the late crops of Peas.

Cistus purpureus (true).—This is one of the plants to which it is advisable to apply the affix "true" in order to denote the real thing, for, unfortunately, there are many inferior forms in cultivation under the specific name purpureus. The true species usually differs from others in having a conspicuous dark blotch at the base of each rosy purple petal. It is by far the best of its colour in cultivation, and our illustration shows it in company with flowering alpine in the rock garden at Friar Park, Henley.

A Beautiful Iris.—In Iris Monnieri we have one of the most beautiful of all the Irises. Its

charming rich yellow flowers are carried on bold spikes 5 feet to 6 feet high, similar to *I. ochroleuca*, and it is a most useful plant for the back of the herbaceous border, particularly as yellow flowers in such a position are somewhat limited at this season of the year. We recently saw it growing on a large border mixed with various shades of blue Delphinium. What a conspicuous bed the two would make when mixed!

Wasps and Grapes.—If one may judge from the number of queen wasps observed this year, we are likely to be visited by an unprecedented plague, and it would be well for the Grape-grower to be prepared for emergencies. The best means of protecting the Grapes is to enclose each bunch in a bag of wasp-proof netting. These

frequented by the public, it may be possible to take advantage of this power of temporary use, while at the same time providing for the eventual improvement of the common.

A Novel System of Planting.—The war has been responsible for a good many violent changes in the practice of gardening and farming, but the following extract from a West Country paper, referring to the "latest American idea," exceeds any development we have yet heard of: "*A propos* of farming matters, in the latest American idea the seed is sold already spaced and embedded in a tape. This tape is composed of a special fertilising material which, decomposing and associating with the soil immediately contiguous to the seed, assists its germination and growth.

The tape is sold in coils up to 40 feet or 50 feet long; but it can, of course, be cut to the length required. All that it is necessary to do is to plant the tape in accordance with the directions given. Sowing in this manner (as the claim goes) can be carried out rapidly and with the minimum of physical exertion."

National Diploma in Horticulture.—The 1916 examinations for the National Diploma in Horticulture—established by the Royal Horticultural Society in conjunction with His Majesty's Government—were held at the Society's Gardens at Wisley in June. At their meeting on July 4 the Council approved the recommendations of the examiners that the Diploma should be bestowed upon the following, who have satisfactorily passed the Final Examination: Section I.

—Miss E. H. Ekins, Studley College, Warwick; Mr. A. D. Turner, Madryn Farm School, Pwllheli, North Wales. Section II.—Mr. J. Coombes, Research Station, Long Ashton, Bristol. Section VIII.—Mr. A. D. Turner, Madryn Farm School, Pwllheli, North Wales. Nine candidates satisfied the examiners' requirements in the Preliminary Examination. These candidates are accordingly eligible to take the Final Examination in 1917 if they have then spent six years in regular garden work, or as soon thereafter as they can satisfy this requirement.

* * * Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.



CISTUS PURPUREUS (TRUE) IN THE ROCK GARDEN AT FRIAR PARK.
It is one of the most handsome of the Sweet Cistineæ.

bags can be bought ready made in different sizes.

Utilisation of Common Land.—In view of the importance of increased food production, it may be useful to call attention to the existing statutory powers for the temporary use of land subject to rights of common. Under Section 15 of the Inclosure Act, 1773 (13 George III., chapter 81), it is competent for the lord of a manor, with the consent of three-fourths of the commoners in meeting assembled, to lease by auction a part not exceeding one-twelfth of the common for not more than four years; and the net rent is to be applied by the lord and the major part of his tenants in draining, fencing or otherwise improving the residue of the common. In the case of common land which is not at present

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Zero Again.—In connection with the cultivation of Gum Trees (*Eucalyptus*) in the British Islands, my attention has been called to the following paragraph which appeared in a contemporary: "It was pointed out by the late Mr. A. R. Wallace that there are in the higher plateaux of Australia large areas of country where the thermometer not infrequently falls below zero, and where snow often lies on the ground for weeks, and in Tasmania there are extensive plains where the winter climate is severer than this." I have not Mr. Wallace's book at hand for reference, but I have no doubt that his remarks were based on the Centigrade thermometer, the zero of which is the freezing point (or 32°) of Fahrenheit, which makes a great difference. As to snow lying for weeks, I can imagine climatic conditions under which this might be possible.—W. BOTTING HEMSLEY, LL.D., F.R.S., V.M.H.

Orchis maculata alba.—An unusually fine example of the chaste and beautiful *Orchis maculata alba* is shown in the illustration, reproduced from a photograph. The plant has just bloomed on the fine rock garden of Sir Frank Crisp at Friar Park, Henley. The flowers are of the purest white, and the best spike measured 6 inches long, the clump itself being 2 feet high. *O. maculata* is of the easiest possible culture, and only craves an open situation on a border or rock garden where its bulbs will remain undisturbed when at rest. A carpet of some dwarf-growing alpine affords a useful protection from disturbance, and seedlings are occasionally found in such situations, sometimes escaping detection until they throw up a spike. The white form is occasionally found in a wild state among plants of the type, and one such was grown in the collection of the late Sir Trevor Lawrence, Bart., at Burford, many years ago. It should be added that the Friar Park plant, which is exceptionally strong, is without the usual dark blotches in the leaves, a character which I believe accompanies the absence of purple markings from the flowers in this species. It is a charming variety.—R. A. ROLFE, A.L.S.

Rosa macrantha.—This is a Rose that should be more seen, for there is beauty not only in the flower—a soft pink with large shell-like petals—but the growth is strong and the leaves remain on the shoots far into the autumn. In the desire to acquire novelties, many of our beautiful older Roses are almost forgotten. *Macrantha* in a garden of Roses has given as much pleasure as any of those of vigorous growth. Here it is planted close to the glossy-leaved, almost evergreen *Jersey Beauty*, and on the other side is the pink and white *Leuchtstern*. This type of Rose requires drastic thinning out of worn or weakly growths—*Jersey Beauty* in particular—these, if not watched, running into kinds near and spoiling their beauty. The plants are fully exposed to wind and sun, and the soil is light. Other kinds that are a pronounced success under similar conditions are *Bardou Job* (one of the deepest in colour of all the single crimson Roses), *The Garland*, *Longworth Rambler*, *Claire*

Jacquier, the little-seen *Stanwell Perpetual*, *Mrs. Bosanquet*, *Lady Waterlow* and *Gustave Regis*.—V., Bucks.

Cheiranthus linifolius.—This has been flowering very freely for many weeks and is still doing so (the end of the first week in July). It is one of Mr. Clarence Elliott's recent introductions, and though termed an annual, has with us behaved more like a biennial, as the following will show. Seed was bought and sown early in 1915. The seedlings were pricked out in the usual way, and finally bedded out in two round beds in practically full sunshine. For some strange reason scarcely any of the plants flowered, though they grew to a fair size. Late in the autumn I took up the best roots and heeled them in against a west fence to see whether and how they would stand the winter.



A HANDSOME GROUP OF THE PURE WHITE ORCHIS MACULATA ALBA.

The bulk of them did so remarkably well, with the result above stated—a profusion of choice-looking mauve flowers. So many of the *Cheiranthuses*—nearly all, one might say—are orange or lemon shades that the above variety is the more distinct and pleasing possession. This year we have grown it in the rock garden, for which it is well fitted.—C. T., Highgate.

The Bee and Wasp Orchises.—In Mr. H. Stuart Thompson's interesting note, page 342, issue July 15, with photograph, of the above, reference might have been made to Mr. E. G. Baker's summary of the forms of the Bee Orchis at the Linnean Society's meeting on April 17, 1913. He there described and showed examples of various forms which passed from typical *Orchis apifera* to the extreme *O. Trollii* from Bristol. These intermediate plants occur at Reigate, Lewes and Oxford. Those from Reigate (which

have been recorded as *O. Trollii*) are really much closer to the Bee Orchis (of which it has the colouring), but the lip is more tapering, its sides are inflexed, and the appendage projects; the petals, too, are rather narrower. The Lewes and Oxford plants are a step nearer the extreme Bristol form, and in colouring and shape of petals and labellum occupy approximately an intermediate position between the latter and the Reigate plant. Although this interesting Wasp Orchis from Bristol is a good distance removed from the ordinary Bee Orchis in appearance, yet it is not apparently identical with the true *O. Trollii* of Hegetschweiler, but is the nearest approach to it we have in these islands.—C. E. S., *Pilgrim's Way, Reigate*.

Gardeners' Royal Benevolent Institution.

It being deemed inadvisable to hold the usual Festival Dinner in the present circumstances, the committee of the Gardeners' Royal Benevolent Institution have issued the following appeal in aid of the funds: "May we plead for your practical sympathy on behalf of the Gardeners' Royal Benevolent Institution, a most deserving national horticultural charity, the immense benefits of which we can vouch for to many most worthy and necessitous men and widows. We hope you will kindly cheer the committee by sending a subscription or donation to help them to maintain the good work which has been of such great value during the last seventy-eight years. The demands on our resources are ever on the increase, but never more so than at this present crisis in our nation's history. We urgently need funds to support the 265 annuitants, and there are no fewer than forty-two applicants anxiously awaiting aid, of whom sixteen are widows, who cannot be assisted for lack of means, and which number is constantly being added to. We therefore earnestly appeal for your generous financial assistance.—We are, yours very faithfully, GRENFELL, F.M., President of the Royal Horticultural Society; HARRY J. VEITCH, Treasurer and Chairman of Committee, Gardeners' Royal Benevolent Institution; GEORGE J. INGRAM, Secretary, 92, Victoria Street, London, July 10, 1916."

Toads in Strawberry Beds.

—*Re* your note on toads and Strawberries in your issue of July 8, I can give absolute proof of the fact that toads—and frogs—eat Strawberries. And I also can easily tell whether the fruit has been touched by bird, slug or toad, as the latter leaves a clean hole in the Strawberry as though a tube had been inserted. I have more than once seen a toad sucking a Strawberry in my garden.—(Miss) A. L. WAUD, *The Haven, Elstead, Godalming, Surrey*.

—I should like to say, in answer to your note and Mr. Edgar Hanbury, that the gardener was quite right about the toad eating Strawberries. The gardens here are very much enclosed by woods, and both toads and frogs are very numerous—the latter the worst. I like to see toads about, and if they are found in the Strawberries it is quite easy to take them further away. But frogs are worse; they cleared all the Strawberries or spoilt them as soon as they began to turn. When I had to make away with them, this was done in the spring.

when the water was full of little tadpoles, which turn to frogs, and I have not had any great trouble since. But one can always tell if frogs or toads are spoiling Strawberries by the appearance of the damaged fruit, which is very pappy and smooth, with no deep holes, like those caused by birds. Even rats and mice dig large holes into them, quite different to toads.—G. ANDREWS, *Dane Court Gardens, Tilmanstone, Kent.*

— I hope no harm came to the toad whose strange mouthful of Strawberry is recorded in the issue of July 8. I kept tame toads for many years, both native and foreign forms, and never knew them to eat anything that was not only alive, but also alive and kicking. The toad will watch an insect for a long time while it remains still, and never, to my knowledge, darts out its sticky tongue to capture the dainty morsel until the insect makes a move. I should suggest, as the self-appointed counsel for this accused toad, that in reality it gobbled up some marauding insect that had gnawed the Strawberry, and a loosened portion of the fruit had stuck to its tongue, and so, against its will, found its way into its mouth. I hope this will ensure the accused leaving the court without a blemish on its character, for the toad is far too good a friend to get a bad name instead of praise.—E. A. B.

Spinach Beet.—This coarse-growing, rather useless sort of vegetable has little in common with ordinary or Perpetual Spinach. It is grown on the Continent to some extent and is often termed Swiss Chard, one well-known variety being the Lucullus. It is a rank grower, having large leaves with thick ribs, which, according to some imaginative people, is a substitute for Seakale if freed from the foliage. To my way of thinking, Spinach Beet is more suitable for large borders, &c., where it gives a tropical effect. As a vegetable, few care for it.—T. A. W.

The National Rose Society and Northern Growers.—Might I suggest that the name of the National Rose Society be changed into the Southern Counties Rose Society. I notice that at the late show no prize was won with blooms grown north of Oxford (with the exception of Peterborough). If the National Rose Society is to be the society, the show must be at a later date than June 30. I hear that the City of London Rose Society's Show on July 7 was a fine one. A date to suit all growers would be about the second Friday in July. I should like to see a Midland Counties Rose Society—we have a large number of keen Rose growers—a society not in opposition to the National Rose Society. Might I ask your help.—MIDLANDS. [Even allowing for this exceptionally late season, we are still of the opinion that the National Rose Society's show in London is now held at least a week too early. We speak from memory, but we believe that better shows were held a few years ago at a later date. A similar suggestion has been made regarding the National Sweet Pea Society's show, and we quite expect to see this show held in the North or Midlands for the next year or so. Unless provincial shows are held, it seems only fair to Northern growers that the London shows should be held at later dates.—ED.]

The White Form of Meconopsis Wallichii.—A pure white form of this fine plant was shown at the meeting of the Scientific Committee of the Royal Horticultural Society on June 22 last year, and is recorded in the minutes of the committee in the Journal of the Society on page cvi., Vol. XLI., Part 2, December, 1915. The pearly whiteness

of the flowers shown gave a good idea of how lovely a good spike of that form would look among those with blue flowers. I saw a very pale—nearly white—form in Mr. Hyatt Baker's garden at Almondsbury last autumn, but it had just too much of blue in it to be truly called white. A few days ago I greatly admired a grouping of *M. Wallichii* in Mr. Elwes' garden. Most of the plants were of the puce-coloured form known as var. *fusco-purpurea*, but among them were two fine spikes with flowers of a lovely peach blossom shade that blended finely with the darker ones.—E. A. BOWLES.

The Longevity of *Verbena Chamædryoides*.—The striking scarlet *Verbena* usually listed as *V. Chamædryoides* (or *Chamædrifolia*), which is now being offered as a rock garden novelty, is one of the most brilliant plants in cultivation. It is, I believe, a native of Buenos Ayres, and considerable doubts were expressed as to its



THE BRILLIANT SCARLET VERBENA CHAMÆDRIFOLIA.

hardiness. It was brought to my notice a few years ago by Mr. R. W. Wallace, and at that time was, I think (with the exception of the few plants in Messrs. Wallace's hands), confined to a Kentish garden, and was an unknown plant to catalogues. Specimens which I brought from Colchester were planted in our East Coast rock garden, where the original plants are still thriving, and have withstood each winter without any shelter. Other groups which were planted later, about three years ago, have grown into large masses, which are glorious throughout the summer-time with their hosts of beautiful scarlet heads of blossom. The fact that even during the late trying winter we have not lost any of our plantings, even in very exposed spots, speaks well for the hardiness of this grand *Verbena*.—P. S. HAYWARD.

FORTHCOMING EVENT.

July 28.—Midland Carnation and Picotee Society's Show at the Botanic Gardens, Edgbaston (two days).

HOW TO PRESERVE FRUIT WITHOUT SUGAR OR ANY SPECIAL APPARATUS

WITH reference to the article on "Fruit Bottling Without Sugar" in THE GARDEN of July 1, page 324, it may interest some of your readers who do not care to lay out money on special apparatus to know that I have used the directions given by "Anne Amateur" in THE GARDEN of August 22, 1914, and have found the result most satisfactory for Pears and Blackberries (the only fruits I have bottled till this year). The Blackberries, cooked after about six months' bottling, were quite as good as freshly picked fruit. The great advantage of the method

is that it is quite simple, and may be used by anyone who has some empty jam jars of glass or earthenware.

Misbrooks, Capel, Surrey.

H. DROOP

For the benefit of new readers we have pleasure in reprinting the very helpful directions referred to :

"Materials Needed in Readiness.—Boiling water sufficient to fill the fruit bottles. Clarified mutton fat, melted and ready to use. (Put this in a jar, into the oven, while the fruit is cooking.) Vegetable parchment covers to fit over all the bottles, and fine, strong twine cut into lengths to tie down each jar quickly.

Method.—Gather the fruit on a dry day, and, having provided clean tea-cloths, very carefully wipe the fruit, laying aside any that are over-ripe, split or in any way imperfect. Place the clean, dry fruit gently in perfectly clean, dry, wide-mouthed bottles or jars, such as old French Plum bottles, good sound glass jam jars, &c. (but do not use any that have contained pickles or vinegar). After filling the bottles with the fruit,

gently turn and keep patting the bottles. In this way the fruit settles down, so that you will find you can add some more fruit to each jar after it is apparently quite full. Next stand the bottles in an open vessel, such as a large fish-kettle or any large saucepan, &c., and put clean straw, hay or rags between the bottles to prevent them from shifting while cooking. Fill the large vessel with cold water till it reaches to about 2 inches or 3 inches below the tops of the jars. Let it gradually boil up, and keep it boiling till the fruit at the bottom of the jars just begins to show signs of cracking. Then ('I can't be interrupted to speak to anyone, not even the Queen if she should chance to call') fill the bottles with boiling water from the kettle, thoroughly covering the fruit (as it often soaks up a little of the water), and carefully and quickly add just enough of the melted fat to entirely cover the surface of the water. Tie the vegetable parchment covers over the jars instantly. Set the jars to cool, and wipe every one before storing, in case any of the fat should be on the outside. Store on cool, airy shelves. Fruit preserved thus will keep good for twelve months.—ANNE AMATEUR."

GARDEN PINKS

ONE was reminded afresh of the beauty and variety of the garden Pink by a really remarkable collection of a modern race of these plants shown by Mr. B. Ladhams of Shirley, near Southampton, before the Royal Horticultural Society recently. For some years now Mr. Ladhams has specialised in these best of all dwarf-growing early summer border flowers, till now, as a result, he has gathered around him a modern set which, if not entirely free from the one great defect—pod-bursting—of the older types, display considerable immunity therefrom, together with improvements in other directions. In the past, despite the pod-bursting of so many

sorts, the Pink was welcome for those good attributes, hardiness, simple cultural needs and, not least, fragrance, and one closed one's eyes to the defect of the moment. Happily, much of this has been deleted; while those who knew the older sorts, Anne Boleyn, Paddington, Mrs. Sinkins and Her Majesty, will be pleased to know that in the main these are to-day superseded by others of superior form, more free and, in some instances, perpetual flowering, without losing the rich heritage of fragrance which rendered the older sorts so deservedly popular.

On the occasion in question Mr. Ladhams exhibited some three dozen or more sorts, from out of which, in view of the interest taken by readers of THE GARDEN in easily grown subjects, the following were selected. To assist those interested I give them in colour groups. The only pure white noted was Miss Vince—it might well be called *invincible*, so pure and good is it. I know of nothing like it. It is fuller and purer than Albion, which I grew many years ago. Of whites with crimson or maroon coloured bases, I give three in order of merit: Market Favourite, Coronation and Mrs. Prior, that named first being the fullest, the third the most perfect in form with the least tendency to run, and therefore affording a sharper colour contrast with increased purity of white. In all probability many would place Coronation first, but experience of Market Favourite compels me to put it at the top. In the deep rose shades there are two, Elsie and Nellie; both are first class. Elsie excels in size and form, the other being the brighter coloured. Both, however, are wanted. Of paler rose colour, Rosy Gem is alone and very beautiful. The finest laced white with crimson base was Joyce. It is tall, handsome and a great bloomer. Inchmery, among pale pink selfs, attracted me on the stand, as it does in the garden. It is very delicate and quite beautiful. A variety of great charm is Favourite (see illustration). It is a semi-double pink with maroon crimson ring, and is delightfully fragrant. It must not be confounded with Market Favourite; the two are quite distinct. In pink with



PINK JOYCE, LACED WHITE WITH CRIMSON BASE.

crimson base Aurora is at the top of the tree, and is head and shoulders above all else. Harold deserves honourable mention here, as does Alice, and both are of merit. In the singles, a showy and attractive class that the modern raiser is making his own, two stood out from all the rest, viz., Saros, maroon crimson with irregularly white-blotched petals, and Improved Morning Star, whose deeply gashed, pure white, crimson-centred flowers constitute the finest contrast that I know of in these plants.

E. H. JENKINS.

THE TULIP AS A WORKMAN'S FLOWER

(Continued from page 345.)

THE working man particularly dislikes those things he has chosen for display and effect to come below the standard of efficiency to be seen in the next garden. What he needs is a few helpful instructions; but although there is a bond of sympathy between himself and his neighbours, who themselves may be very successful, many of the latter are not adept in the art of speech, and may be unable to put their advice into words comprehensively. This article is therefore written in the hope that allotment holders and others who would like to become successful cultivators may find a few words of advice relative hereto.

Assuming the reader has accommodation and has made up his mind to grow a limited quantity of Tulips, he should set out a space 12 yards long and 4 feet wide. This may be halved, quartered, or multiplied to suit his wishes. The area mentioned would grow 252 bulbs, placed six in a



FAVOURITE, USEFUL FOR CUTTING AND GARDEN DECORATION.

ow 10 inches apart, making forty-two rows. Cultivation is not at all difficult. Almost any kind of soil will be found suitable, although soil of a sandy nature is to be preferred. If you possibly can plant the bulbs in ground from which you have lifted your early Potatoes, give a fair sprinkling of well-rotted manure strictly in accordance with the following instructions: From one end of the bed, for a space of 3 feet, dig out a spit of soil and deposit it at the other end. Fill your barrow with all the rubbish obtainable and manure, throw sufficient into the space thus emptied, and dig all the rubbish and manure into the second spit. Take the top spit from the next 3 feet and throw it equally over the prepared underspit. Repeat this process of manuring and digging until the bed is complete; then fill into the vacant space the soil brought from the opposite end. If a handful of bone-meal is applied to every yard turned over, so much the better. Rake level and straighten the edges of the bed. Let the bed remain until you are ready to plant it.

It is essential that the bed be kept free from weeds, and for this purpose a Dutch (push) hoe is the best tool; therefore get a board as long as the width of the bed and 10 inches wide by three-quarters of an inch deep and lay it upon the bed about 6 inches from the end. With a wide-mouthed shovel make a small trench of the depth of three bulbs diameter, throwing the lifted soil on to the 6-inch space. Take six bulbs and plant them in the trench at equal distances from each other, leaving about 2 inches space at each end. Now turn the board over, keeping it at right angles across the bed, and dig out another trench along the edge of the board (stand on the board) and cover the bulbs planted. Repeat the operation until the bed is finished. The bed should be raised about 3 inches. Rake level and keep it permanently free from weeds. If you follow this plan I will guarantee you a bed of Tulips fit for exhibition the following June. Remember to label the Tulips correctly.

Now let us select a nice variety that will do the grower justice. To give the proper fascinating charm, a good blending of colour is of first importance. Take, then, as follows and plant in the order given—the prices are per dozen: Glory, fiery scarlet, 1s. 3d.; Harry Ritch, dark crimson, 2s.; Picotee, picoteed pink, 10d.; Fra Angelico, nearly black, 1s. 6d.; Princess Juliana, orange scarlet, 1s. 6d.; Margaret, soft pink, 2s. 6d.; Bouton d'Or, yellow, 10d.; Prince Eugen, reddish brown, 1s. 3d.; Auticus, rich rose, 1s. 6d.; Rev. H. D'ombrian, light scarlet, 1s. 6d.; Sultan, deep purple lilac, 1s.; Pride of Haarlem, scarlet, 1s. 3d.; Orange King, orange, 1s. 3d.; Farncombe Sanders, vermilion rose, 2s.; Mrs. Moon, yellow, 2s. 6d.; Miss, deep scarlet, 2s.; Mrs. Krelage, pink, 1s.; and Donders, crimson, 1s. 3d. These varieties may be added to or selected from as fancy dictates to make up the complement decided upon. I cannot guarantee prices. Those named have been taken chiefly from 1916 catalogues. The time of planting is varied by different growers for various reasons. Some say October is best, and others strongly advocate November. The compilers doubtless could furnish convincing arguments upholding their respective periods. I advise you to lift the bulbs when the foliage shows signs of decay. Cut off the seed-pods to strengthen the bulb. Clean, sort and stow away ready to replant later.

GEORGE STOCKS.

ANTIRRHINUM NOTES

ANTIRRHINUMS are so generally grown as annuals that we are apt to overlook the fact that they are true perennials, though the improved varieties are not always hardy perennials. Their relative tenderness is largely a matter of cultivation, for in our anxiety to get the most out of them, by overfeeding and overwatering, we produce somewhat soft plants which are not fitted to withstand our trying winters. The original *Antirrhinum majus*, which very likely the old Romans brought over to "Angle-land," where it is now naturalised, came from a rather dry locality with a poor, stony soil, and under such conditions it is a hardy, shrubby perennial.

Last autumn, when clearing the flower-beds of their summer occupants, I selected about three



ANTIRRHINUM MAJUS HENDERSONII.

A striped variety survival of the florists' flower.

dozen of the most stocky *Antirrhinums* and had them potted into 6-inch pots with a view to obtaining cut flowers in the spring. For a fortnight these plants remained on the shady side of a hedge, where they soon made new roots and became established. Then they were transferred to a warm greenhouse, and my expectations of an ample supply of cut flowers during the early spring were more than fulfilled. But as the season progressed, these plants demanded more space than I could afford—many other plants, all indispensable, insisted on having their spring quarters—so the *Antirrhinums* were moved to an unheated Peach-house. Here the shade soon threatened to become too dense; but by this time they were hardy and could go outdoors, so I planted them in twos and threes, in their colours, in the herbaceous border in place of the early Tulips. There they are, splendid little bushes fully 30 inches

high. Since the middle of May each plant has given a glorious display of vivid crimson, delicate pink or soft golden flowers, brightening the border to an unprecedented degree, besides giving a quantity of useful cut flowers. These plants, I hope, will prove capable of withstanding the winters and become permanent.

It is interesting to recollect that although the Greater Snapdragon has been in cultivation for hundreds of years, it is only the present generation that has fully realised its great garden value, and now in place of varieties bearing either striped or washy flowers the great seedsmen have given us most lovely sorts of all possible pure shades of colour.

CECIL BARTLETT.

ANTIRRHINUM MAJUS HENDERSONII

RAISERS of what are termed florists' flowers have seldom succeeded in producing any plant that has proved a lasting memorial to their skill and energy. Those who have had the privilege of looking over some of the publications devoted to florists' flowers, such as "The Florist," "The Floral World," "The Floricultural Cabinet" and many others, must feel regret that all, or nearly all, the beautiful creations so finely figured should have passed out of existence. All the many periodicals devoted to the doings of the florist have ceased publication. Only in the library can one inspect all that remains, *i.e.*, the printed page or coloured illustration. The regret inspired by these defunct journals should not, however, be allowed to linger. Getting rid of the arbitrary demands and exactnesses of the florist has been a great gain to horticulture, and no florists' flower of the present day can be said to have deteriorated, but the reverse. They are also grown in a more natural way, and by a multitude whose numbers are legion.

To the question, "What is the oldest surviving variety of any florists' flower?" I am not able to give an answer, though probably some of the Auriculas might have strong claims to the honour.

The plant under notice, however, is a variety of *Antirrhinum* which has been carefully preserved for sixty-five years—surely a remarkable record for a garden or florists' flower. This lovely variety was raised by the late Messrs. Henderson and Sons, Wellington Nurseries, St. John's Wood. It is described and most faithfully portrayed in "The Floricultural Cabinet" for 1852. It is still grown by Messrs. John Forbes (Hawick), Limited. [The flowers shown in the accompanying illustration were brought by Mr. Forbes to the recent Holland House Show.—Ed.] This *Antirrhinum* has survived for no other reason than that it is an extremely beautiful plant. It has, no doubt, become slightly weakened in constitution from sixty-five years of propagation by cuttings, for, although it seeds freely, I have never seen any of its progeny remotely resembling the parent plant. *Antirrhinum Hendersonii* belongs to the striped section so much admired by the florists sixty or more years ago. The flowers are beautifully marked or banded with a fine shade of soft pink and white. The two colours so blend that a spike of flowers particularly chaste and beautiful is formed. The plant succeeds in the open border or flower-bed, and requires treatment in no way different from that of the many modern varieties.

Greenwich Park.

T. HAY.

NOTES FROM MYDDELTON HOUSE GARDEN

By E. A. BOWLES, M.A., F.L.S.

I CHOOSE *Meconopsis chelidonifolia* for my sketch because it is flowering here for the first time, and there is still enough of the baby in me to make me want to play with a new toy. Also it is exceedingly graceful and, I believe, still very uncommon in gardens. It comes from Sze-chuan in Western China, and has been distributed very generously from Glasnevin, where it first flowered in Europe, I think, in 1914.

As it is quite hardy, a good perennial and, moreover, very easily propagated, it ought to be found before long in every good garden where a cool, half-shaded position can be spared for it. I brought home a tuft of young plants from Glasnevin a year ago last April, divided it and planted the resulting pieces in two clumps. Those among some Ferns in rather rich, cool soil did best and threw up slender, leafy stems, but did not flower last year. The tallest of these stems fell over, and I was delighted to find in the autumn that where it touched the ground every axil had rooted and produced a little plant. This spring each plant has shot up a stem, and until the middle of June they stood up stiffly and their alternate leaves looked so unlike those of a *Meconopsis* that I liked asking visitors to guess what the plant was. The

giant Clover with sulphur yellow flowers in heads as large as a hen's egg. It is found in Eastern Europe from Lombardy to Montenegro, and I believe is used as a fodder plant; but, nevertheless, it is a good thing in a garden. My plants have not been disturbed—except to dig off pieces for friends who longed for it—for seven years, and show no signs of deterioration. I consider any herbaceous plant that can be left alone for such a period and yet will fill its place worthily a real treasure, and one of such unusual colouring

I said when we started, "Now at last I may get a chance of acquiring that *Centranthus*, and as soon as we reached a region of hot valley with rough stone slides I kept an open eye for its round heads of soft pink flowers. A turn of the road brought us suddenly into a region where it grew in profusion, and I was soon scrambling up the rattling stone slides to the ledges where it flourished, disturbing the grey and green lizards which darted away into the crevices in every direction. Old plants had such enormous roots that I saw it was hopeless to attempt to dig them out, and as no medium-sized ones were to be found, I began prising out tender babes. How hot it was on those rocks, and how quickly those little plants flagged when uprooted! I had left my vasculum in the

car, and there was no large-leaved plant to provide them with a cool wrapping, and the only plan I could think of for saving their lives was to put the little fleshy roots into my mouth. Thus decorated with a sort of green moustache I returned in a speechless condition to my friends. The youngsters survived, and are now in full bloom and very charming on the top of a small excrescence of the rock garden, with various kinds of Thrifts, of all shades from cerise to white, as their neighbours. I expect this Valerian would be a good thing for a dry wall, and especially as a companion for green-leaved plants. The individual flowers are small, but in your heads they are packed so close that they suggest some pink Scabious. In their old age the branches of each head lengthen out and they then look more like some small *Statice*. They have a pleasant scent, reminding one a little of Jasmine, and the very narrow small leaves make it a much neater plant than the better-known *Centranthus ruber*.

I am more than ever convinced of the wisdom of bringing plants from many and diverse localities in the hope of discovering some inherent differences of habit among them. I have already mentioned the variation in shape, colour and season of flowering of the many forms of *Anemone nemorosa* I have brought home to grow side by side. Now I think and hope I have obtained a race of *Lychnis Flos-cuculi* that will prolong the season of rosy meadows for another month. The form indigenous to this neighbourhood is now a mass of purple seed-pods, looking like some large form of Quaking Grass; but some I brought from the Norfolk Broads are scarcely in their full beauty yet. They are for the most part white and flesh pink variations, but many of their seedlings have reverted to the common rosy form. I had scanned marshes rosy with the Ragged Robin for many years when entomologising among them in the hope of finding a good white form, but saw no variation at all. Then one day I had a rare moth in my net, and looking through the gauze to box it, I saw a large clump of a good white *Lychnis*, and before the moth was safely in custody I noticed a flesh pink form beside it. Of course, both of them joined my other portable property, as well as the moth, and returned home with me, and their seedlings have given me great



MECONOPSIS CHELIDONIFOLIA.

(Slightly reduced.)

From a drawing by E. A. Bowles.

most descriptive answer I got referred it to the Ribes family, and no one suggested its belonging to the Papaveraceæ. That is because, though the lower leaves are mostly divided into three leaflets and wonderfully similar to those of the Greater Celandine, as its name implies, the upper ones are very much like those of Ribes alpinum.

Now each of the purple-black stems arches over with the weight of the many heart-shaped flower-buds on the terminal shoot, and the lesser zigzag sprays that branch out from the leaf-axils of the central stem. I have drawn one of these terminal shoots in its natural position showing the drooping buds and erect, open flower, which is much like a small Welsh Poppy, both in shape and its bright yellow colouring.

Another plant I seldom meet with, but a very ornamental one, is *Trifolium pannonicum*, a

and outline deserves a good place. To add to its charms it has a very pleasant Cowslip-like scent, and lasts well as a cut flower.

Centranthus angustifolius, a graceful Valerian with salmon pink flowers, has pleased me greatly this season. I had always admired it as seen from the train on the stony railway banks before one reaches Modane, and again on the other side of the Mont Cenis Tunnel, but could never find it on the higher ground in which I collected in that district. Then came a time when it was so difficult to make the public motor-buses and trains fit in to bring us comfortably down from Le Lautaret to Grenoble that we settled to hire a motor-car and take our time over the descent, stopping to collect plants or to enjoy the glorious scenery of that beautiful road as we pleased.

pleasure for over a dozen years, and have gone forth to many other gardens. The white is far more beautiful than one I had formerly, for my own find has the crimson calyx of the ordinary pink form, while my now despised and cast-away form had a pallid green calyx that declared it a pigment-deficient, weakling albino. I have often noticed that when a white form shows a paleness throughout flower and foliage, it is a poor thing and lacks substance and vigour; but if there is deep colouring in leaf and stem, the whiteness is of greater purity and looks solid and rich instead of transparent and flimsy. It is markedly so in the case of my white Ragged Robin, but it is curious to note that the flesh pink form has a light green stem and calyx that add a charm to its effect of pallor. Both forms are now beginning to spread in a damp meadow that is no longer grazed, and only mown in portions among the colonies of flowering plants.

A patch of seedlings of *Lilium regale* four years old is one of the sights of the moment. A few flowered last year with single flowers to the stem; this season several are bearing three. Still more encouraging is a fine bud on one of a row of seedlings only in their second year. All who possess this lovely and hardy Lily ought to save every possible pinch of seed for their own use or to give away, that in a few years' time every cottage garden may be brightened with its lovely flowers and scented by its fragrance, which combines that of Honeysuckle and the Madonna Lily. It is a wonderfully beautiful flower to look into closely. The rich claret colour covers the entire backs, save for a narrow margin of white, of the three narrower outer segments, but only forms a raised rib with a flush of colour on either side down the centre of the wide inner ones, so that seen from the back the flowers are a rich contrast of white and claret. Their open face gets a flush of red here and there when the light passes through the claret back to the pure white surface; but its chief glory is the rich orange and yellow throat that, together with the peculiarly brilliant orange of the anthers, makes the flower look as though made of gold and ivory.

THE TWELVE BEST RAMBLER ROSES

A FEW days ago, when judging Roses at a show with a well-known Rose expert and nursery grower, we started discussing the merits of Rambler Roses. Subsequently we drew up a list of what we considered the twelve best, irrespective of the large-flowered sorts, such as the climbing forms of Lady Ashtown and Mrs. W. J. Grant, and for the benefit of others these are now given in what we considered their order of merit. Without exception the Roses mentioned are well-tried sorts, and the list does not include new varieties, however promising they may be, that have yet to prove their worth in the outdoor garden. Considering the important part that these Rambler Roses now play in our gardens, it would be of considerable interest and value if readers would send the Editor lists of what they consider the twelve best. In making selections, hardiness, freedom from disease, freedom of flowering and their general effect in the garden, and, in lesser degree, when cut, should be borne in mind. First on our own list comes

American Pillar.—This is a single-flowered Rose of extraordinary vigour, the foliage being large and glossy green. It belongs to the multiflora scandens group, was raised in America, and was put into commerce in 1909. The colour of the flowers is clear rose, with pale pink centre, set off with prominent yellow stamens. The blooms are borne in large clusters, and in a normal season open at the end of June. This year, like other Roses, it is flowering later, and it is now at the height of its beauty in many gardens.

Tausendschon.—This originated in Germany, and first appeared in commerce in 1907. It also belongs to the multiflora scandens group, and is exceptionally beautiful. The charming rose pink, semi-double flowers are produced in good-sized clusters early in June, and last a long time. Owing to its rather soft wood, it is apt to get damaged somewhat in cold districts. It is not so vigorous as most ramblers, but is excellent for a pillar.

Excelsa.—A Wichuraiana Rose that is destined to oust Crimson Rambler from our gardens. It

Minnehaha.—In general appearance this American-raised Wichuraiana variety closely resembles Dorothy Perkins, but usually the flowers are of a more intense pink colour, and borne in larger clusters. It is very vigorous, easily grown, and flowers about the second week in July. Put into commerce in 1905.

Dorothy Perkins.—A Wichuraiana Rose that is too well known to need description. When sent to this country from America in 1901, it caused quite a sensation, its beautiful pink flowers being produced so freely about mid-July. It is a very good Rambler for forcing.

Lady Godiva.—A very charming Rose that originated in this country in 1908 as a sport from Dorothy Perkins. It has a vigorous habit, and the pale blush flowers are borne in profusion at the same time as those of its prototype.

Blush Rambler.—A multiflora scandens Rose that was raised in this country and put into commerce in 1903. One of the easiest to grow, and always flowers well. The single blooms are blush rose in colour, and are produced in large



TRIFOLIUM PANNONICUM, A GIANT CLOVER WITH SULPHUR YELLOW FLOWERS, IN THE GARDENS AT MYDDELTON HOUSE.

is not subject to attacks by mildew to anything like the same extent as Crimson Rambler. It was raised in America and sent to this country in 1909. It has much the same habit as Dorothy Perkins, and its bright rosy crimson flowers are produced in abundance about the second week in July. They do not turn blue in the sun.

Hiawatha.—Another Wichuraiana Rose that was raised in America and sent to us in 1907. Its single flowers are bright crimson, and each has a white eye or centre. They are produced in large clusters in mid-July, and last in good condition for a long time. The plant is very vigorous and easy to grow.

Alberic Barbier.—A French-raised Wichuraiana that came to us in 1900. It is a very vigorous Rose, with beautiful glossy foliage. Always flowers freely early in June, the buds being yellow, changing to creamy white with age. In common with other Wichuraianas it makes clean, healthy growth, which with the aid of little spraying is able to resist fungus attacks.

clusters at the end of June. Very vigorous habit. It makes a fine pillar Rose.

Climbing Aimee Vibert.—This was first known as long ago as 1841, and is still one of the best ramblers. It has a very vigorous habit and is almost evergreen, the white flowers being profusely borne in large clusters at the end of June. It is classed as a Noisette, and often flowers in autumn.

Goldfinch.—This is an excellent English-raised Rose, first put on the market in 1908. The buds are deep yellow, but as they open, about mid-June, the semi-double flowers change to white. It grows freely and is not subject to pests. Belongs to the multiflora scandens section, and is excellent for cutting.

Paul's Carmine Pillar.—This, classed as a Hybrid Tea, was raised in this country, and first sold in 1895. The single flowers are large and bright carmine-scarlet in colour, often opening before May has departed. It is a beautiful Rose for scrambling over old trees. A. B.

A PLEA FOR MORE LILIES IN OUR GARDENS

(Continued from page 346.)

WHICH VARIETIES TO PLANT.

Japanese and Eastern Lilies (Stem-rooting, and many of them hate lime).—*L. auratum* platyphyllum, *L. a. p. virginale*, *L. Brownii*, *L. giganteum*, *L. Hansonii*, *L. Henryi* (likes lime), *L. speciosum* Melpomene, *L. tigrinum splendens*, *L. t. Fortunei* and *L. umbellatum* (in variety).

North American (Like a moist, cool, peaty site).—*L. canadense*, *L. Humboldtii* magnificum, *L. pardalinum* (Panther and Lily) *L. superbum*.

European (Grow almost anywhere, and most of them like lime).—*L. candidum* (Madonna Lily), *L. chalcedonicum* (old Scarlet Turk's-cap), *L. croceum* (Orange Lily), *L. pyrenaicum* (Yellow Turk's-cap), *L. excelsum* (Nankeen Lily), *L. Martagon* (Purple Turk's-cap), *L. Martagon album* (white variety), *L. Martagon dalmaticum* and *L. Szovitzianum*.

All the Lilies mentioned in this list are perfectly hardy in England, except possibly *giganteum*, the luxuriant early growth of which suffers sadly from late spring frosts, even when protected by Spruce or other branches, and I have abandoned it. Possibly its failure was a mute protest against being expected to unfurl its glorious beauty in such humble surroundings. I apologise, and confess it is more in keeping with one of "the stately homes of England."

Neither have I succeeded with *Brownii*. But the three bulbs supplied were such poor things that I had no hope from the first. Perhaps, like the old Tulip growers, one should see the bulbs lifted.

"The right cultivation of all plants has been amply written about." In addition to Goldring, Grove, and Miss Jekyll, let all would-be Lily growers study the very excellent articles by Sir Herbert Maxwell, published in *THE GARDEN*, January and February, 1915.

Nothing could be better. I tried *Brownii* some time before these appeared. One of these days, given one or two good bulbs, and by following his instructions minutely as to soil, I still hope to succeed with this exquisite Lily.

Good Drainage is quite as important as good bulbs. I have nearly all these Lilies planted on a long, wide border sloping to the north, 2 feet above the level in front, rising to 4 feet or 5 feet at the back. A low retaining wall in front makes it into a kind of terrace. Here the bulbs are fairly dry in winter; the soil being of a light sandy character, the natural drainage is good.

A few pieces of broken sandstone below the bulbs are useful. The fibrous roots work their way down among them and enjoy the cool root run, especially if there be some old hotbed stuff below, while the bulbs, packed in sand, above, are safe from decay. The surrounding and covering soil should be prepared to suit the tastes of the different



THE PANTHER LILY, *LILIUM PARDALINUM*. FLOWERS ORANGE AND RED.

varieties; peat and leaf-mould for one, nice loam for another, clay and gravel with very little humus for *Humboldtii* (Krelage), and so on. No manure near the bulbs. But this, or leaf-mould, should be applied as a top-dressing, after copious rains, in May, to keep them cool in summer and to feed the stem roots of those which have them.

Low shrubs and tall grasses at the back of the border shade the roots, another essential; but the flower-spikes shoot up and revel in the sunshine. All seem quite at home here, even the Swamp Lilies.

Chalcedonicum is at the south-east end on a sunny knoll, and well supplied with the lime it loves. These bulbs I brought away in full flower from a cottage garden on the Yorkshire moors in early September, 1914, and they have multiplied exceedingly. A native of Asia Minor and the Eastern Mediterranean, it is probable that some of our men with the Mediterranean Expeditionary Force will recognise a home face when they come across its brilliant scarlet flowers.

Candidum and *excelsum* (testaceum), the beautiful Nankeen Lily, such a feature of Messrs. Wallace's group at the Chelsea Show, prefer the sunniest aspect you can give them, especially the former.

"Boast not to me of your modesty

Big white Lily, for, list you,
I was hid by the Copper Beech
When the sun came out and
kissed you.

I saw him linger for long at
your side,
Denials are useless, for, hark
you,
You asked for his kisses with
your tongue of gold
Oh! 'tis naught to your
credit, so mark you.

What a jest to speak of your
pure cold face.
'Twere better in blushes to
lave you.
You are not cold, you are
white with heat
Of the passionate kisses he
gave you."

—ALICE MAY.

The Propagation of Lilies is effected in various ways. Many varieties seed freely, *Martagon album* and *Szovitzianum* particularly, and if seed be sown as soon as ripe, or early in the year, either in pans in a cold frame, or merely in the open ground, it germinates well, but six or eight years must elapse before the young plants will flower. Individual scales of such bulbs as *excelsum*, if detached and planted in sand in a well-drained position in the open, make flowering bulbs in from three to five years. I have raised numbers in this way.

Excelsum and *speciosum*, possibly others, form tiny bulblets round the base of the flower-stems, particularly when well top-dressed. These, similarly treated, very quickly attain maturity. *Tigrinum splendens* and *t. Fortunei* form bulbils in the axils of the leaves, which, if planted as soon as ripe, form flowering bulbs much sooner than do seeds. Then in some bulbs more than one seed-bud develops, which gives rise to twin bulbs. This characteristic appears to be hereditary, and provides a rapid source of multiplication.

In conclusion, when your Lilies are doing well, leave them alone!

W. D.

PROSPECTS OF THE LILY SEASON IN SOUTHERN SCOTLAND

BY THE REV. DAVID R. WILLIAMSON.

LAST year the growth of Oriental and American Lilies was greatly restricted by the long prevalence of an abnormal drought; this season it has been greatly stimulated by an abundance of rain. I have recently had the privilege of visiting several notable gardens in Southern Scotland where the finest Lilies are extensively and adequately grown; among the most interesting of these were those at Lochinch Castle and Logan House, the latter in this peninsular parish; and in both places I saw some splendid specimens of *Lilium giganteum*.

Mr. McDouall of Logan is a great admirer and earnest cultivator of Oriental Lilies; he gives them, personally, every possible attention, and especially at present, when his highly capable head-gardener, Mr. Findlay, has gone to the great war. Like the Countess of Stair, Mr. McDouall now grows the majestic Lily of the Himalayas in the centre of a sheltering wood, right in front of Logan House. Planted in fibrous and fertile soil, they succeed admirably there; their growth—as in the “wild garden” of the Countess at Lochinch—is massive, and they flower luxuriantly.

The Lilies that I chiefly grow in my new garden (at Kirk House in Kirkmaiden) are *auratum*, *giganteum*, *speciosum*, *Martagon* and *longiflorum*; I also have a considerable number of other varieties in a small conservatory, where they usually grow and flower more effectively than even in the garden, which has this special limitation—that it is somewhat exposed to the exacting influence of east winds. The only Lily that has not succeeded well here is *Lilium auratum*, which usually does best in a peaty soil; but, on the other hand, such precious varieties as *speciosum magnificum*—a great acquisition—and *longiflorum Wilsonii* and *giganteum* are a great success. Towards the end of October I hope to add *Lilium regale* and *L. Sargentiae* to my collection, through the kindness of Sir Herbert Maxwell, who has grown these glorious Lilies grandly at Monreith, where he has a very extensive and famous collection.

I am gratified to find that, in Kirkmaiden Manse Garden (even in the absence of my successor, the Rev. James MacMorland, B.D., who has joined the Royal Army Medical Corps), such invaluable Lilies as *Szovitzianum*, *speciosum*, *candidum* and *Hansonii* promise to flower nearly as effectively as in former years.

Owing to the sunless weather this is by no means a good Lily year; nevertheless, the hardy *L. Hansonii* has been flowering exceptionally well for the past three weeks in Southern gardens.

SUMMER PRUNING OF HARDY FRUIT TREES

IN response to many enquiries, we reprint the following article by a Northern expert in the hope that its timely appearance will prove helpful to those who are in doubt on the subject of summer pruning:

Long since recognised as an operation of prime importance in the case of wall or similarly trained fruit, there is yet some want of appreciation of the usefulness of such work as summer pruning where fruit in the open ground is concerned. Many growers of small areas of fruit, though they do essay to summer prune, are often at fault in their method of putting the operation into effect.

summer pruning is not practicable nor necessary. The following remarks apply to specimens trained on wall or trellis, or grown in bush or pyramid form in the cultivated open ground. From the first fortnight in August in the South to the last fortnight of the same month in the North of England is the best time in normal seasons for the work. The chief objects in view are the economical and profitable use of space and the maturation and full development of fruit-buds. Most varieties of tree fruit grown in a trained or a bush form are very wasteful in the matter of space. Examining an average extension or a main lateral growth in the autumn, one invariably finds the plump fruit-buds occupying the central portion, and separated from the old wood from which the shoot sprang by several inches of young wood bearing small, flat buds. With these latter



LILIUM CANADENSE. FLOWERS YELLOW TO DEEP ORANGE.

Some prune too early, and cause the trees to waste their vigour in secondary growth of a comparatively weak and useless character; others defeat their object in a similar way by pruning too severely, even going so far as to cut off a good part of every shoot; while others fail to discriminate in their treatment of growths of varying vigour. Such errors as these have in no small degree contributed to the disheartening appearances many small plots of bush Apples, and other fruits, present at this time.

Summer pruning will not in itself cause an unfruitful tree to become fruitful, but it will contribute to symmetrical development and the economical use of space and plant vigour.

Apples and Other Tree Fruit.—Where these are grown as standards in the garden or orchard,

buds we are mainly concerned. If we neglect to prune the shoot in the summer and winter, these wood-buds will in all probability remain dormant, thus conducing to a loose and rampant, even if fairly fruitful, bush.

Again, should summer pruning be neglected and the grower, under the impression that winter pruning is essential, prunes back to the normal 4 inches or 5 inches, these basal wood-buds will almost all produce strong shoots, which renders the tree a veritable thicket the following summer. It is far better, where summer pruning of open-ground fruit is not attempted, to merely remove to the base two-thirds of these growths at winter pruning, leaving the rest to bear fruit. Some varieties do, indeed, bear best when treated in this manner, such, for instance, as Lord Derby, Domino, Irish

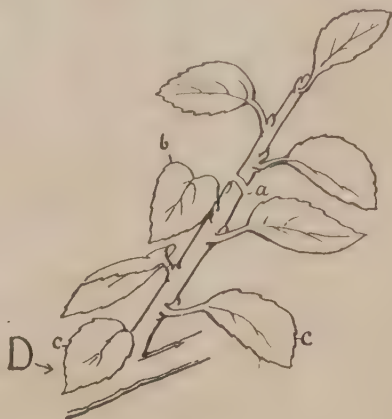
Peach and Cornish Gilliflower. Coupled with the removal of weak, useless shoots in the summer, the method of merely thinning in winter may be commended to market growers, with whom shape and space are of less importance than the saving of labour and early production of fruit.

With the exception of those varieties mentioned, there are very few others which will not respond successfully to summer pruning as it is generally understood and practised. At the time mentioned, all new growth except the main extension growths must be cut or pinched back to an average of six buds (generally approximating to 4 inches to 6 inches from the base). In the case of Plums on walls, &c., this may be slightly severer, and where much breast-wood is made, preceded at an earlier date by judicious wholesale thinning. In clay soils and damp autumns the bud immediately below the cut may "push" 1 inch or 2 inches. This does not matter, however, since all summer-pruned growths are cut back one, two or three buds further at winter pruning, according to the strength or need of the growth.

The effect of this method of pruning is to cause the basal wood-buds to develop the following summer. One or two will produce wood growths, while from one to three will produce short fruiting spurs. The reader must bear in mind that this severe method of pruning applies only to lateral and other subsidiary growth. The extension shoots are pruned only in winter, and then only slightly, if there is ample room for development.

Bush Fruit.—Under the influence of good cultivation, bush fruit is prone to grow luxuriantly and densely, such growth being in consequence drawn and imperfectly ripened. The pruning

when grown on walls, or laterals vying in strength with the leaders when grown in the open ground. This superabundance must be removed by the shortening of all but the extension shoots back to within 1 inch or 2 inches of the old wood.



A side shoot about a foot long (a).
Point of stopping at third good leaf (b).
(c) Not counting basal leaves.

This cutting back must be modified in those instances where serious leaf reduction appears possible under the full treatment.

Black Currants, when growing strongly, need a slight thinning of the young shoots to admit of short-jointed, well-ripened wood for fruiting next year. A percentage of the old wood can also often be advantageously removed as soon as the fruit is gathered.

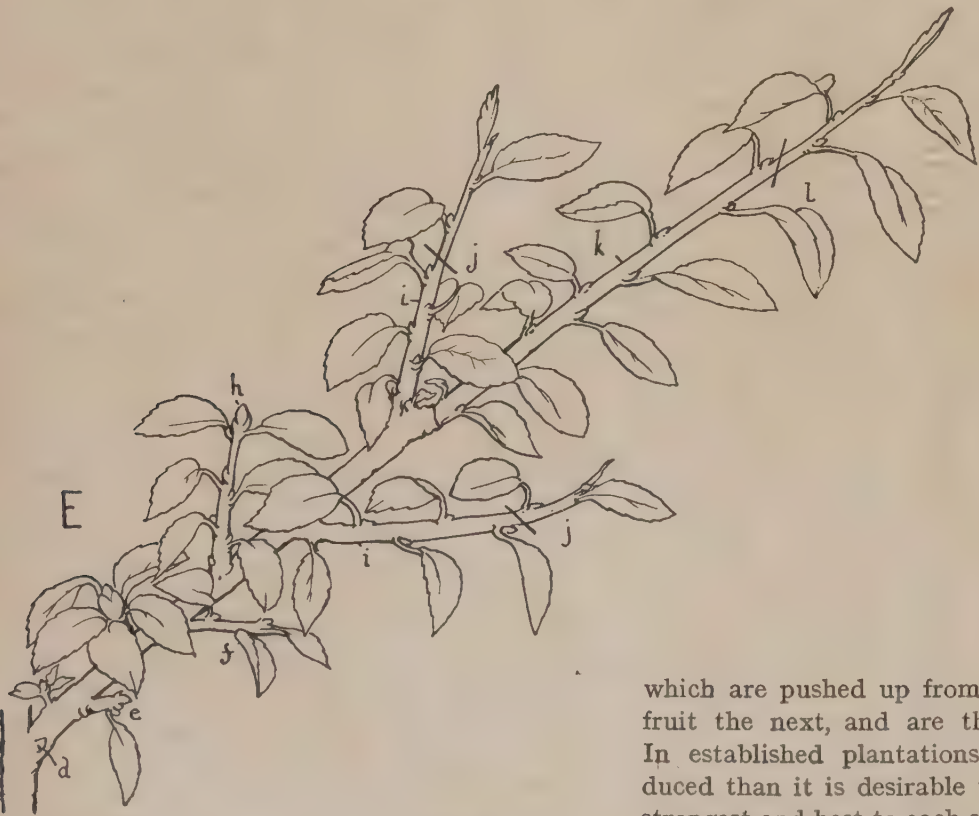
Gooseberries are prodigious shoot producers, and even moderate pruning aggravates the evil. The judicious thinning of entire shoots will,

however, do much good and help to prevent, or repress American Gooseberry mildew.

Raspberries are pruned when fruiting is finished by the entire removal of old canes. Sometimes, however, where the young growth arises thickly, much benefit will accrue to the elimination of the weakest canes.

It should always be borne in mind that the Raspberry fruits on the young canes, i.e., those

which are pushed up from the base one summer, fruit the next, and are then of no further use. In established plantations more canes are produced than it is desirable to retain. Four of the strongest and best to each stool or plant are ample. As soon as all the fruit has been gathered, the old canes which have borne that fruit should be cut out right down to the base. At the same time all superfluous and weak canes should be removed so as to admit light and air to those retained, which is essential in order that the canes should be well ripened before the winter. All that is then necessary in winter pruning is to remove the soft, unripe tops of the young canes, and by shortening them to varying levels they will fruit from the lowest canes to the very top.



BRANCH OF APPLE TREE.

Spur-like growths at e, f, g, h, not to be pruned; side shoots, i, to be shortened to the point of pinching at j.

needed is more in the nature of thinning, and can most advantageously be carried out from now onwards as occasion requires, rather than be performed at any special period.

Red Currants are generally the first to need attention, producing abundance of breast-wood

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

Peaches.—It will now be necessary to go over the early trees every morning and gather the fruits that will easily leave the tree. In doing so care must be taken not to bruise the fruits, and they may be placed in a cool room or store for a day or two before sending them in for dessert. Nets placed over the trees, if made secure at the bottom, will catch any fruits that may fall during the day. Traps must be set for earwigs and wasps.

Budding.—Many trees, such as the Plum, Peach, Nectarine and Cherry, are increased by budding, and where stocks have been planted, such work must now be carried out or directly the bark will lift easily.

The Kitchen Garden.

Cabbage.—A sowing of Cabbage should be made about this date, and another early in August. Sow in drills 1 foot apart, and select an open situation to prevent the young plants becoming drawn. If the soil is dry, it will be advisable to water the drills before sowing. Three excellent kinds are Harbinger, Ellam's Early and Wheeler's Imperial.

Endive.—The principal sowing of Batavian Endive should be made for a winter supply, and in a few weeks' time another can be made, which will furnish plants for early spring use.

The Flower Garden.

Antirrhinums.—If any of these popular flowers are required to bloom next May or June, the seed ought to be sown at once in boxes of light soil. Place them in a cold frame and keep them shaded until germination has taken place. When large enough, they may be pricked off in boxes or in the nursery beds.

Gilia coronopifolia.—This is a delightful half-hardy biennial which blooms about this time. For next year's display seed should now be sown and treated as advised for Antirrhinums. The seedlings should be placed singly in small pots and arranged in a cold frame during the winter months. Admit air on all favourable occasions, as the plants are very liable to damp off. In the spring they may be planted out in any well-drained border, choosing a sunny position.

Carnations.—Directly the flowering period is over, layering must begin. Select only strong, vigorous growths, all weak and weedy shoots being removed. The surface soil around the plants should be loosened and a little light, sandy compost added. Partially sever the growth, and split the stem slightly in an upward direction, when it is pegged down on the soil. Give a thorough watering, and if the weather is dry a slight sprinkling each evening will assist in the formation of roots.

Plants Under Glass.

Begonias.—The early struck plants of the Gloire de Lorraine type will need repotting and staking. Pots 4½ inches and 5 inches in diameter prove the most suitable receptacles, and one thin stake is usually sufficient, the growths being neatly looped up with thin green raffia. The house should be kept warm and a buoyant atmosphere maintained. Other Begonias, such as eliator, &c., which were rooted six weeks or so ago, can now be placed in their flowering pots. Do not pinch the growths after this date. The house must be vaporised at least once a fortnight; then the mite is usually kept down.

Poinsettias.—The earliest-rooted cuttings can now receive their final potting, employing pots 5 inches and 6 inches in diameter. Grow the plants near to the roof glass in a temperature of 65°, and expose them to plenty of sunshine, but see that the foliage is not scorched. Sufficient ventilation should be given to promote short-jointed growth.

Fruit Under Glass.

Early Vinery.—The Grapes will now be cleared from the Vines, and the rods should be thoroughly cleansed. The foliage must be retained as long

as possible, as the buds at the base will benefit in consequence. Lateral growth must be kept in check, but it is advisable to leave some of the strong shoots at the top of the rods to encourage root action.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Winter Spinach.—A first sowing of Spinach for winter should now be sown. It is advisable to make two or three sowings at intervals of ten days. The variety Prickly Winter is usually recommended for sowing at this season, but we find the Viroflay quite as reliable, and, indeed, it is now used exclusively for summer and winter crops. It is not recommended to have the ground too rich or too soft when sowing, relying principally on stimulating the crop in spring with small doses of nitrate of soda.

Potatoes.—The digging of early varieties of Potatoes will now be general, and a sufficient quantity should be retained for seed; these, however, must remain in the ground until quite ripe. Selection of the best types should be carefully observed. Later sorts must be examined when in flower, so that rogues may be eliminated in good time, as these will occur even under the most careful management.

The Fruit Garden.

Wall Trees.—Attention must be given to the stopping or pinching of the shoots and the laying in of the leaders for extension or for covering the walls. It will also be found that a number of growths can still be removed altogether unless the previous disbudding has been rigorously performed. Hitherto insect pests have not been troublesome on the walls, owing probably to the prevalence of heavy rains which have washed the foliage. If green fly still makes its appearance, the trees should be syringed with Quassia, which is the safest and most effectual insecticide to use at this season.

Strawberries.—If not already done, no time should now be lost in gathering runners for fresh plantations outside. Each grower follows his own system in this as in most other crops; but in one respect the majority are in agreement—that the runners of this summer, whether planted out in their permanent quarters this autumn or next spring, should not be allowed to fruit the first year. More for convenience than for any other advantage, I prefer planting out in the spring—the latter end of March or early in April—from runners gathered at the present time and run into nursery lines for the winter. Should I arrange to plant in autumn, I would prefer to secure the runners early in small pots in the same manner followed for forcing purposes, and get them planted as early as possible, so that they would be well established before winter frosts set in to disturb them in the ground. Those, of course, who force a large quantity will usually get all the plants they require from that source; and no better plan can be followed than that of planting out from the pots as soon as the plants have fruited.

Fruit Under Glass.

Midseason Grapes.—Great care is necessary at this season with some varieties both as regards watering and ventilation, as extremes of either will cause cracking or splitting of the berries, especially of the Muscat varieties.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

NATIONAL SWEET PEA SOCIETY'S SHOW

THE sixteenth annual exhibition of this society was held in the Royal Horticultural Hall on July 11, and from many points of view must be accounted a considerable success. Though fewer competitors than usual took part and a few more vacant spaces than is customary occurred in some of the cup classes, there was, notwithstanding, a great feast of the flower presented to view; while in quality of bloom nothing finer, probably, has ever before been seen. This, in view of the uncongenial weather conditions experienced during recent weeks, is paying high tribute to the general excellence of the flowers staged. Grossness, indeed, was almost conspicuous by its absence, and, replaced by refinement in many instances it would make it appear that cultivators,

Felton (mauve, two shades), Agricola (pinky white), President (scarlet), Prince Edward of Wales (rosy pink), Prince George (rosy mauve), Felton's Cream and Royal Purple; a really remarkably good and distinct set. Mr. F. W. Franks, Loampits, Tonbridge, Kent, was an excellent second, Audrey Crier, Jean Ireland, May Unwin, Barbara, King Manoel, Hercules, Constance Hinton, R. F. Felton, John Ingman, Robert Sydenham, Elfrida Pearson and Royal Purple constituting his set. Mr. E. G. Mocatta, Woburn Place, Addlestone, was third, showing a clean lot of flowers. Five collections were staged.

For the Sutton Cup, eighteen bunches, distinct, two collections were staged, the trophy, with gold medal and a cash prize, going to Mr. H. H. Lees, 61, Polsloe Road, Exeter, whose well-balanced lot included Barbara, Mrs. A. Ireland, Dobbie's Cream, Mark's Tey, Dorothy, Prince George, King Mauve, Elsie Herbert, King Manoel, Edward Cowdy, R. F. Felton and Jean Ireland; a fine assortment of a high standard of excellence. Mr. L. Cookson, Bryn-y-grog, Wrexham, was second, Prince George, Barbara, King White and Hercules being some of the finer sorts.

In Class 3 (Messrs. John King and Sons' Challenge Cup), for twelve bunches, distinct, Mr. W. Philip, Astley House, Astley, near Shrewsbury, was first with a superb dozen, quality which has rarely been surpassed. We give the best for the benefit of our readers: Constance Hinton (white), May Unwin (reddish scarlet), Elfrida Pearson (pink), Agricola (rose pink), Jean Ireland (red and cream), R. F. Felton (mauve), Dobbie's Cream, Mark's Tey (red and purple), Edrom Beauty (orange and rose), Prince George (rosy red), Duchess of Portland (cream and pink) and Hercules (pink and white). Mr. H. H. Lees, Polsloe Road, Exeter, was a good second.

For six bunches of new Sweet Peas, distinct, three entered, two being disqualified, one for a mixed vase, the other for having one variety wrongly named, that whose name was challenged being labelled Miss Burnie (white). We think it a little unfortunate that the disqualifying committee (or judges) did not in such a case supply the correct name and in this way have clinched their decision in the matter. In the circumstances the first prize only was awarded, this going to Mr. Thomas Jones, Ruabon, for a beautiful set comprising Jean Ireland, Peace, Melody, Golden Glory (surely a misnomer for an almost vermilion scarlet coloured variety!), Miss Burnie and Victory.

The only exhibit in Class 5 was disqualified for being mixed.

In Class 6 (classification class, open to all), for eighteen bunches, distinct, three exhibitors staged, Mr. Henry D. Tigwell, Greenford, Middlesex, taking the lead with a particularly good set, Jean Ireland, Melba, Mrs. H. Sykes, Royal Purple, Dobbie's Cream, Hercules, R. F. Felton, Illuminator and Nora Unwin (white) being some of the best; second, Messrs. Piper and Sons, Bayswater, whose flowers were very fresh and good. Duchess of Portland, Don Alva (blue-mauve), Hawlmark Gladys (pink and cream), Hercules and Constance Hinton (white) were some of the best. Mr. R. Wright, Formby, Liverpool, was third.

For twelve bunches, distinct, four exhibitors set up collections, the premier award being taken by Major Molsom, Goring Hill, Goring-on-Sea, Sussex, with a grand lot of flowers,

some of the finest, indeed, in the entire exhibition. Rosabelle, Constance Hinton, King Manoel, Melba, R. F. Felton, Jean Ireland, Agricola, Sunproof Crimson, Hercules, Mark's Tey, Mrs. Cuthbertson and Royal Purple comprised the set. Mr. F. W. Franks, Loampits, Tonbridge, was second with a capital assortment.

Seedling Class.—For three bunches of Sweet Peas, distinct, Mr. J. Stevenson, Wimborne, was first with Royalty (reddish purple and violet—see illustration), Faith (sky blue and mauve) and Hope (scarlet).

Four exhibitors staged in Class 9 for one bunch of a novelty not yet in commerce, no award being made.

In Class 10, for the E. W. King Challenge Cup, for twelve varieties, distinct, in commerce, five collections were staged, Mr. E. Broad, Trezinger, Fowey, being an excellent first, having Rosina, Mrs. Breadmore, R. F. Felton, Dobbie's Cream, Edrom Beauty, Elsie Herbert, Lady Miller (palest salmon and cream) and Mark's Tey in a capital lot. Mr. Alfred F. Blades, Reigate, showed well and took second prize.



MR. J. STEVENSON'S ROYALTY, REDDISH PURPLE AND VIOLET.

The most distinct of the new seedlings at the National Sweet Pea Society's Show.

with that fineness of judgment characterising the best of them, are reducing to a fine art their knowledge of the food requirements of the Sweet Pea, and are favouring to-day a diet which, while nourishing and stimulating, retains the best the flower contains, to the exclusion of grossness, which is a disfigurement to so elegant a subject. In this way the show makes for a progress we are pleased to note. Only one variety gained an award of merit. As usual, the leading trade exhibitors contributed handsome displays, two large gold medals and four gold medals being awarded in this section alone.

GENERAL DIVISION.

In the Henry Eckford Memorial Class, for twelve bunches of Sweet Peas, distinct, named varieties in commerce, the first prize is the Henry Eckford Challenge Cup, the gold medal of the society and 30s. in cash, and this was awarded to Mr. W. H. Holloway, Port Hill, Shrewsbury, for an admirable dozen, as follows: Audrey Crier (pink), Warrior (maroon), Edrom Beauty (rose), Melba (salmon), Jean Ireland (cream and pink), R. F.

Burpee Cup Class.—In this the challenge trophy, together with the gold medal of the society, are offered as first prize for a display of waved Sweet Peas on a space 3 feet by 3 feet. Mr. E. G. Mocatta, Woburn Place, Addlestone (gardener, Mr. T. Stevenson), secured the coveted honour against four competitors for the finest lot ever staged in this class. Thirty varieties were employed, and, despite the limitations of space, which, in the circumstances, rendered artistic effect a difficult task, every vase held its own with telling effect. It was, indeed, a table of Sweet Peas through and through, its conception as admirable as its ultimate execution. Too often—invariably, indeed—such exhibits resolve themselves into packed banks of flowers, all sides and ends, as far removed from that “elegance of arrangement” the committee seek to encourage as it is possible to be. It is in these circumstances, therefore, that we congratulate Mr. Stevenson, first, on his clever work, and, secondly, for affording what we regarded as the most useful object-lesson in staging the show contained. A skilful cultivator, Mr. Stevenson also possesses artistic ability as an exhibitor, and the two are rarely embodied in a single individual. Messrs. E. W. King and Co., Coggeshall, Essex, were second.

London Class, six bunches: First, Mr. W. Ravan, Berkshire Gardens, Wood Green, his best being Margaret Atlee and R. F. Felton.

The Scottish Class was unrepresented.

In the Irish Class nine bunches were required, the first prize being awarded to Mrs. H. V. Macnamara, Ennistymon, County Clare, who staged admirably Margaret Fife, Hercules, Jean Ireland and Hawlmark Cream.

The Welsh Class brought six collections to the front, the whole making an admirable display. Mr. Thomas Jones, Ruabon, being a good first with Melba, Peace, Sunproof Crimson, Jean Ireland, Felton's Cream, R. F. Felton, Royal Purple, John Ingman and Hercules. Second, Mr. L. Webb, Lower Terrace, Welshpool.

Only one collection was staged in the Northern Counties Class, Mr. F. J. Harrison, Ulverston, taking first prize.

The first prize in the Western Counties Class was won by Mr. W. H. Holloway, Port Hill, Shrewsbury, who had a very fine lot. Ivory King, May Unwin, Prince George, Edrom Beauty, Warrior (fine maroon) and Austin Frederick (mauve and blue) were the best. Second, Mr. H. H. Lees. Four competed.

The Midland Counties Class was less well represented, the first prize being awarded to Mr. F. Carter, Thorpe Mandeville, Banbury, for a not very good lot.

The Southern Counties Class contained an excellent nine from Mr. F. W. Franks, Tonbridge, Kent, who took first and the challenge trophy presented by the Boundary Chemical Company, Liverpool. King Manoel, Barbara, Royal Purple and Dobbie's Cream were the best of those shown.

In the Eastern Counties Class, Mr. G. W. Paton, Malting Farm, near Bishop's Stortford, was first with not very high quality blooms.

In the Bide Challenge Cup Class only one collection was set up, Miss R. Christy, Orchards, Chelmsford, securing the first prize.

In the Perkin Challenge Cup Class three competed, Dr. G. S. Leggatt, Harpenden, Herts, being the first prize winner.

Five collections were staged in the Breadmore Challenge Cup Class for six varieties, the leading place being occupied by Mr. Richard Cox, The Vicarage Gardens, Wimborne, Dorset, who had Queen of Norway, Hercules, Clara Curtis, King Manoel, R. F. Felton and Maud Holmes, all good. Second, Mr. W. Philip, Astley House, Astley, near Shrewsbury.

SPECIAL DIVISION FOR AMATEURS.

New Hawlmark Challenge Cup Class.—The first prize—a silver cup, value twenty guineas, together with the society's gold medal—was easily won by Mr. Thomas Jones, Ruabon, who showed a superb dozen, which comprised Agricola, Melba, Elsie Herbert, Mark's Tey, Felton's Cream, Hercules, Jean Ireland, Lavender George Herbert, Miss Burnie, Warrior and Elfrida Pearson; a very telling lot.

TABLE DECORATION AND EPERGNES.

Five entered for the dinner-table decoration, Mrs. A. D. Ruff, Sharnbrook, Beds, being awarded the first prize for an arrangement of scarlet and pink and cream Sweet Peas with Asparagus, grasses and light Maidenhair Fern. The same exhibitor also took first prize for an epergne, three competing.

Mrs. Alex. Robinson, Carshalton, was the winner of the first prize for a vase of Sweet Peas, for which five others entered. No originality was displayed by any of the exhibitors.

AWARD OF MERIT.

Sweet Pea Selected Old Rose.—The dominant colour tone is rose, with lighter rose pink wings. Shown by Messrs. Dobbie and Co., Edinburgh.

NON-COMPETITIVE EXHIBITS.

These, as usual, were in strong force, and were arranged as in former years around the sides of the hall. Taking them as we found them, we came first to that from Messrs. E. W. King and Co., Coggeshall, who set up great columns of leading sorts. Attraction (salmon and cream), Constance Hinton (white), Anglican White, Progress (handsome rose pink and white), Robert Sydenham and Farnham Lavender were among leading sorts. Gold medal.

Robert Sydenham, Limited, Birmingham, contributed a large collection in silvered vases, Edith Taylor, Norvic (white), Lady Evelyn Eyre, Scarlet Emperor, Lillian (rose) and Lord Nelson Spencer (violet and purple) were of special merit.

Mr. J. Stevenson, Wimborne, showed fine pillars of Warrior (maroon), Faith (lavender blue), King Mauve, Constance Hinton (white), Golden Glory (almost vermilion) and of remarkable lustre) and Honour Bright (intense reddish scarlet), and they were very attractively staged. Large gold medal.

Mr. Robert Bolton, Warton, Carnforth, staged imposing stands of R. F. Felton (two shades of mauve), Jean Ireland (a lovely cream, pink-tinted sort), Mrs. Hardcastle Sykes, Surprise (a novel shade, salmon with apricot), Felton's Cream and Victory (blue and mauve). Gold medal.

Messrs. Hobbies, Limited, Dereham, displayed a collection of some thirty or so varieties of Sweet Peas in leading sorts, though many bore marks of bad weather.

In a well-displayed collection Messrs. Piper and Son, Bayswater, showed Jean Ireland, Lillian (pink), Constance Hinton (very fine white), Dobbie's Cream, Mrs. C. W. Breadmore and Elsie Herbert very finely. Gold medal.

Handsome vases and stands characterised an exhibit from Messrs. Alex. Dickson and Sons, Belfast, one of the gold medal collections of the occasion. Hawlmark Cream, Blue Picotee, Phyllis (bicolor), Hawlmark Pink (a lovely shade), Sincerity (scarlet) and Cherub (deep cream, shaded light scarlet) were notables in a superb lot.

Messrs. Dobbie and Co., Edinburgh, had a most imposing exhibit, and staged it well. Royal Purple was under Dobbie's Cream, Mrs. Cuthbertson below Edrom Beauty, Lavender George Herbert over Miss Burnie (white), Jean Ireland playing the same part to Dobbie's Rosabelle. Lady Miller (softest apricot with cream) we thought one of the most charming, Rowena, Tea Rose and Dobbie's Scarlet being also very fine and attracting much attention. A large gold medal was awarded this handsome exhibit.

Messrs. Bide and Sons, Farnham, showed such excellent varieties as Farnham Lavender, Jean Ireland, Edward Cowdy (scarlet), Ruth Bide, White Queen and Wenvoe Castle in a capital lot.

Messrs. Jarman and Co., Chard, also staged a good assortment.

A COLLECTION OF VEGETABLES AT MANCHESTER

At a time when the food question is causing so much concern, the wonderful collection of



PART OF THE GOLD MEDAL EXHIBIT OF VEGETABLES FROM STUDLEY HORTICULTURAL COLLEGE.

vegetables recently exhibited in the Horticultural Section at the Royal Agricultural Society of England's Show at Manchester, and depicted on this page, afforded an interesting illustration of what can be done to add to the nation's supply of food in the present crisis.

The display consisted of fifty dishes, all first-class examples of the gardener's skill, and comprised kinds of definite food value, such as Potatoes, Peas, Carrots, Cabbages, Cauliflowers, Onions, Lettuces, Turnips, Beet, &c., all of which may be grown in every garden under suitable conditions. The entire collection was the produce of Webb's seeds, and included many of the famous Stourbridge firm's well-known specialities. For this display the exhibitor, Dr. Lillias Hamilton, Studley Horticultural College for Women, Warwickshire (gardener, Mr. Gaiger), was awarded the Royal Agricultural Society's gold medal.

ANSWERS TO CORRESPONDENTS

FLOWER GARDEN.

MARIGOLD AND FOXGLOVE (A. G. S.).—The Marigold sent presents what is known as the proliferous state, a term used to denote the occurrence of leaf or flower bud in parts of a plant in which they do not naturally occur. It is met with in many plants, one of the most frequent instances being that of the Hen-and-Chickens Daisy where the inflorescence is usually the part affected, as in the case before us. The same thing, in another form affects the Rose, in which case the flower-stalk is prolonged through the flower, bearing a small, deformed flower at its summit. The Foxglove takes a different form, the corolla being of increased size, the anthers, twice the usual number, being, in some instances, replaced by petaloid filaments. Plant life takes on a variety of peculiarities at times, but for what reason it is not easy to say.

PYRETHRUM FOR NAME (S. B.).—The flower-heads were much wilted on arrival, and it is difficult to be certain respecting the name. We believe it to be, however, the old variety J. N. Twerdy, and if so, it is usually taller and more vigorous in growth than the rest, the centre petals also taking much time to open. The only variety in the same way likely to come into colour competition with it, but which is rather earlier in flower and perhaps more free, is Emilie Lemoine. The first named is readily distinguished, however, by its larger leaf growth, greater stature, and the rich amaranth tone of its florets. Both are very old, having been in cultivation to our knowledge for about forty-five years, and, moreover, in some respects unsurpassed to-day.

THE GREENHOUSE.

ABNORMAL FLOWER OF GLOXINIA (L.).—There is no accounting for freaks of Nature, which occur to a greater or lesser extent in various classes of plant. The Gloxinia is very prone to bear abnormal flowers, under which heading yours must be included. Very frequently a flower with an increased number of lobes may be found, and occasionally there will be a complete fusion of two separate flowers. It is very probable that your plant

will always retain this peculiarity, and a certain percentage of seedlings raised from it may be expected to show this abnormal character to a greater or lesser extent. As, however, this freak is by no means a desirable feature, such an experiment would not appear to be worth trying.

AMARYLLIDS AND CACTI (E. B.).—Some successful cultivators of Amaryllids make a point of plunging the pots, not only when the plants are drying off, but in all stages of growth. On the other hand, some, also successful, do not plunge them at all. If they are stood in a frame during the summer, the sun, though it shines on the tops of the bulbs, has but little effect on the sides of the pots; hence that is the reason we said nothing about plunging. They will go without water during the time we specified, and the roots keep sound. Messrs. Sutton's advice, that they are never to be desiccated, may be taken to imply that they are not to be stood near the hot-water pipes or in any abnormally dry place. They should be stood on the stage of the greenhouse. With regard to the watering of Cacti when in bloom, they must, of course, be watered as before, but not overhead so as to wet the flowers. If by Cacti you refer to the showy-flowered Phyllocacti, which bloom at this time of the year, they should, if well drained, be watered with moderate freedom during the summer. Then, as autumn advances, less water will be needed, and in winter they must be kept on the dry side, but not altogether without water.

THE GARDEN.

No. 2332.—Vol. LXXX.

JULY 29, 1916.

NOTES OF THE WEEK

ON Tuesday, August 1, the first exhibition of dry, British-grown bulbs will take place in conjunction with the fortnightly meeting of the Royal Horticultural Society at Vincent Square, Westminster. There are classes for amateurs as well as for open competition. In view of the fact that the Government has quite recently forbidden any shipping being used for the carriage of flower bulbs, it is the more necessary to show to the public that thoroughly good bulbs of almost all kinds can be grown in our country. The exhibition opens at 1 p.m. and at 3 p.m. a meeting will be held in the Lecture Room, at which prominent speakers will emphasise the importance of this new opportunity for the further development of British bulb culture.

Three Great British Works on Gardening.—A newspaper took a vote of its readers as to whom they considered the foremost English gardener of all time, it is very likely that Paxton would be returned at the head of the poll. The Crystal Palace was, and is, as candid an advertisement as ever it had. Suppose now, putting in a never-to-be-forgotten Parkinson's "Paradise" out of the running, what three works on British gardening would probably be selected as most worthy to have the term "monumental" applied to them? We venture to suggest "Miller's Dictionary," "Loudon's Encyclopædia" and "Nicholson's Dictionary." Every gardener should have these volumes. They represent strata of theory and practice and fact out of which our gardens have been hewn. They are the high-water marks of our time.

War Horticultural Relief Fund.—The ladies' work in connection with the War Horticultural Relief Fund is having a splendid effect, and it is now possible to report that the total amount subscribed and promised reaches, approximately, £9,000. As an instance of the diverse ways in which money is being raised, a cheque for £100 has been received from Lady de-Fothergill, being the amount deducted for fishing in the grounds near her residence, Hensol Castle.

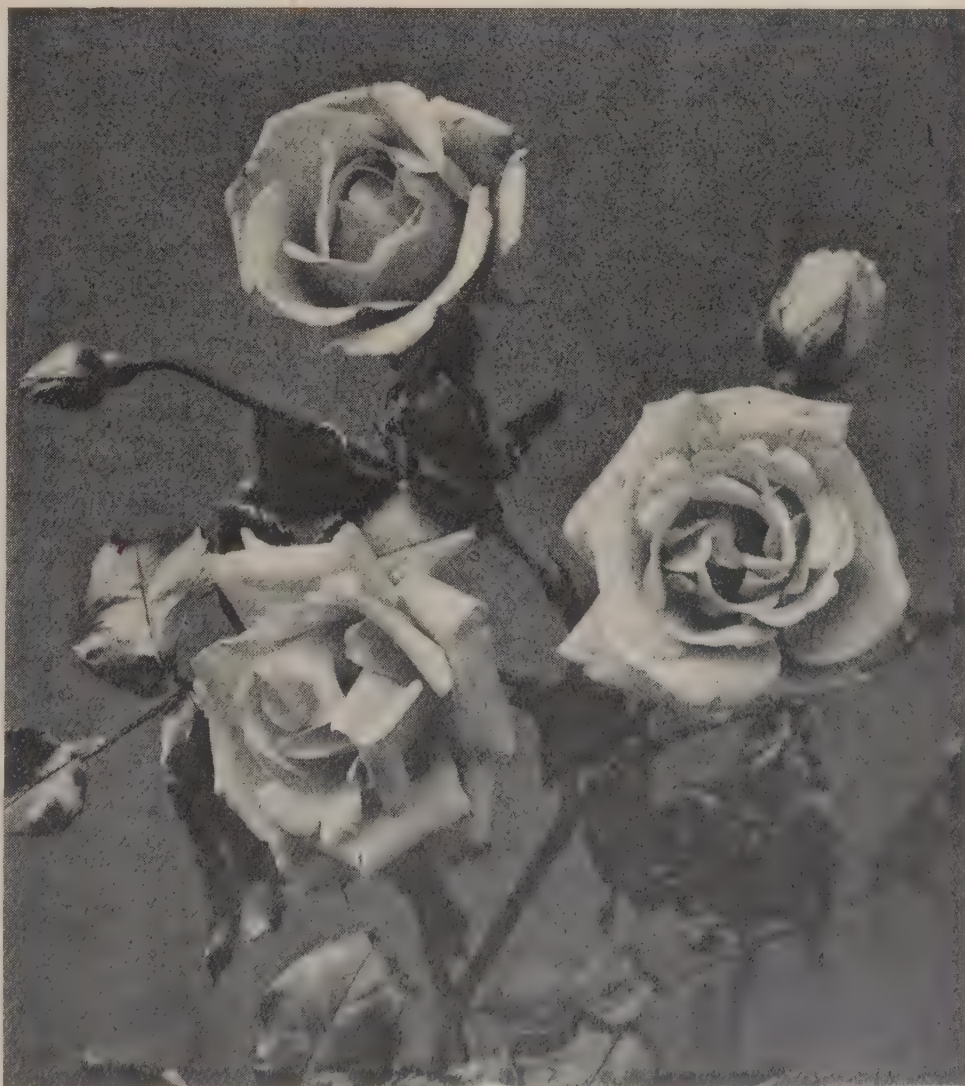
Sundials.—Those who take an interest in sundials and who are not familiar with Maurice Maeterlinck's essays will be glad to know of one entitled "The Measure of the Hours," which appears as No. 1 in his "Life and Flowers," translated by Alexander Teixeira de Mattos and published by George Allen. Various mechanical means which man has invented to visualise the silent imperceptible, but in the bulk the all too obvious, progress of Time are there discussed. The clock, the hour-glass and the sundial are passed in review, and their harmonies with varied life revealed or suggested in that mystical and mythical way which is so characteristic of the great Belgian author.

Gilia coronopifolia.—In No. 4 Greenhouse at Kew two groups of this striking half-hardy biennial are a notable feature. Each group consists of between forty and fifty plants growing singly in 6-inch pots, and

ranging from 4½ feet to 5½ feet in height. Raised from seeds sown in July, 1915, the plants are models of good cultivation. The stems, clothed with elegant Larkspur-like foliage, terminate in long spikes of brilliant light scarlet flowers.

Mulching Roses.—If not already mulched, the dwarf Roses will be greatly assisted to develop their later blooms if a top-dressing is given now. It also saves much watering during hot, dry weather. Climbing varieties that have now finished blooming should have all the old flowering wood removed, and the young growths from the base of the plants given plenty of room to grow freely and receive full exposure so that the wood becomes thoroughly ripened and better able to stand a severe winter. Continue to use the syringe or sprayer to prevent attacks of mildew or aphids.

New Gold Medal Rose Emily Gray (Parentage: Jersey Beauty x Comtesse du Cayla).—This Wichuraiana Rambler, of strong, vigorous, climbing growth, raised by Dr. Williams, Harrow-on-the-Hill, bids fair to prove itself the finest of the yellow climbers. It has strong, thorny wood, and carries foliage and flowers from the base upwards. The young shoots, which spring either from the base or from the stems further up, are a brilliant deep bronzy crimson colour. The foliage is exceptionally fine. The leaves are large and of a deep, very glossy, bronzy green colour—when young the bronze is most marked. It has shown no liability to attacks of mildew or other fungoid pests. The flowers are freely produced in trusses on long, strong stems carrying anything from one to fourteen blooms. The flowers are of beautiful form, lightly double, with petals of fine substance. They are of medium size—about 4 inches across when fully expanded—and have a fine strong Noisette perfume. The colour is a very bright deep golden yellow, which holds well till the flower begins to fade, better, in fact, than any other yellow climber that we know.



THE NEW WICHURAIANA ROSE EMILY GRAY.

** Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Toads in Strawberry Beds.—In reply to your question about toads eating Strawberries, this being Ireland, we have, of course, no toads. But for some years past I have found small frogs very troublesome in this respect.—(Mrs.) E. A. RICARDO, *The Brae, Sion Mills, County Tyrone.*

— I well remember my father, when we were living at Wootton-under-Edge Vicarage, and I was about ten years old, showing me a toad eating a Strawberry, and his saying, "He is welcome, because of all the slugs he has eaten."—T. T., *Godalming.*

— Miss A. L. Waud and Mr. G. Andrews, pages 354 and 355, issue July 22, both seem quite convinced that toads eat Strawberries. Probably they do eat them, but I firmly believe that it is because there are some worms in the portions eaten. Like "E. A. B.," page 355, I have never seen a toad eat any insect unless it was alive and moving at the time. In wet weather Strawberry fruits that touch the soil and remain in contact with it for several days while in a ripe state become infested with small, thread-like worms almost of the same colour as the fruit. I have seen as many as fifty to a hundred in a single fruit, wriggling, and repulsive to look at. But Master Toad would think (if he does think) otherwise, and soon causes their disappearance and the portion of the fruit with them.—GEORGE GARNER.

— I should like to ask your correspondent Mr. E. Hanbury if it is not possible that there was a misunderstanding between the gardener and the toad. It is generally understood that the toad is one of our best friends, and if I found toads in dozens in the Strawberry beds I would

not expect to find many beetles or slugs. It is annoying to lift a fine Strawberry and find a small slug burrowing into it. Is it not possible that the toad got the piece of fruit in its mouth while fulfilling its appointed task and assisting the gardener by devouring one of his worst enemies? In the vineries and other fruit-houses we always have a few toads. Once the vineries here were infested with Vine weevil. Now there is none, and this I attribute entirely to the presence of toads. We had a large black one which became very tame and loved to be stroked on the back or to have a douche from a watering-can. It would take a beetle off the palm of the hand, and it required a sharp eye to see the beetle disappear, so quickly does the tongue dart out and secure its prey. Possibly, however, the toad may be indulging in a change of diet. Last year we discovered squirrels eating Strawberries and carrying them off wholesale in much the same manner as rats do. Shooting is the best remedy for them. Also this year I was much surprised to actually see pheasants picking the fruit through the net which was laid close down on the plants. Rats and mice are very numerous this year. The former bite off large pieces of the fruit, but the latter usually nibble the seeds and cut the fruit off at the stalk, gathering them into heaps beneath the foliage, and in this way destroying large quantities.—SAMUEL GORDON, *Monreith.*

A Remarkable Standard of Frau Karl Druschki.—From time to time I see in THE GARDEN and in other gardening papers illustrations of trees of Rose Frau Karl Druschki, but I have never seen one to equal a standard we have in our kitchen garden, and I enclose a photograph thinking it may interest you. The photograph does not do anything like justice to the tree, for it is planted in a flower border in the kitchen garden where it is difficult to get at it to photograph. This photograph was taken last July (1915). The tree then measured 8 feet high, 7 feet in diameter, and had 321 blooms, nearly all of them 5 inches to 6 inches in diameter. It was planted long ago, I believe in 1901, and each year it is the same wonderful sight, and its second blooming is just as prolific. At the moment of writing it is covered with great white Roses.—V. WATHEN-BARTLETT, *Vereley, Burley, Hants.*

Rose Margaret Dickson Hamill.

Of all the new Roses growing this year in my garden, this variety stands out in a class by itself. To those rosarians I am afraid I must say of an older generation than the present the name of Margaret Dickson was familiar as the best white Rose of their day, both for show and garden purposes, and it remained so for a considerable period until the advent of Frau Karl Druschki. Margaret Dickson Hamill is undoubtedly entitled to the same proud distinction of being the best Rose of its colour now in commerce, namely, a good deep cadmium yellow that does not fade on the plant in full sun. Lady Hillingdon was our deepest yellow and our best bedder, but the new-comer is a deeper shade and has a better habit of growth. Mrs.



MARGARET DICKSON HAMILL, A GRAND YELLOW ROSE.

Margaret Dickson Hamill (*née* Margaret Dickson) is well known to all rosarians who have visited that Mecca of rosarians, the home of her father, the late George Dickson, at Newtownards, Ireland, as its most hospitable hostess; and the new Rose will, I am sure, be welcomed in the garden scattered all the world over of those who have thus been privileged to know her. It is what we have long been waiting for, a really good yellow Rose, hardy, free flowering and a "lasting" colour. A very handsome basket of this variety was staged by the raisers, Messrs. Alex. Dickson and Sons, at the recent National Rose Society show at the Royal Botanic Gardens, and it attracted the attention of Her Majesty Queen Alexandra to whom it was presented. Those who were fortunate enough to see it agreed that it was the finest individual exhibit in the show. Margaret Dickson Hamill received the National Rose Society's gold medal in 1914.—H. E. MOLYNEUX.

Rose Dr. Joseph Drew.—This beautiful novel was among the good things noted at the recent Holland House Show, but which pressure of space at the moment precluded our referring in detail. Fully double, delightfully as well as pronouncedly fragrant, flesh pink to white colour, and very suggestive in its recurving petals of a high class, highly built Mme. A. Chatenay, a big stand of its blooms appealed most forcibly. It was raised by Mr. Courtney Page, one of the hon. secretaries of the National Rose Society, and named by him to perpetuate the memory of the late Dr. Joseph Drew of Cheltenham, an ardent rosarian whose recent death all who love the Rose greatly deplore. I noted it on the stand of Mr. Walter Easlea, Eastwood, Essex, who was expecting to distribute it in the ensuing autumn.—E. H. JENKINS.

Viola gracilis Valderia as a Wilding Breconshire.—I see in THE GARDEN, issue of June 24, page 307, that you have given publication to my note on Viola gracilis Valderia, and I owe you thanks for so kindly providing me with its true name. Publication has, however, somewhat obscured my point, which was that the little alpine deserved more appreciation as a *British native*. These words you have deleted doubtless for some good reason; but if because



STANDARD OF FRAU KARL DRUSCHKI WITH THREE HUNDRED AND TWENTY-ONE BLOOMS.

cannot claim to be a native, it becomes more interesting still to me. Referring to my only book on the *Viola* genus exclusively (Mr. Cuthbertson's), I have thought that my plant resembled *V. gracilis*, but seeing that this is a native of Greece, and that the variety *Valderia* (*heterophylla*) from the Tyrol, I passed it by in my search after identification. Yet my plant I took from a number dotted about among mountain grasses in our own soil, to all appearance a true British native. I know how easily one may be deceived over a garden escape, especially near the bed of a stream; but this is not quite the same thing as the unenclosed lonely top of a Breconshire hill, far from any habitation. From there I brought my plant, and for five or six years have grown it labelled (for want of accurate knowledge) *V. Llan*—(its place name, which I will gladly communicate to you, if desired). The question still to be cleared up in my mind is this: Is *Valderia* a recorded native of Britain, or is my plant another variety of *V. gracilis*?—FRANCES E. WALSH, *Welshpool*. [The plant appears to be true *V. gracilis* *Valderia*, but we have never before heard of it growing wild in this country. We think that some mistake has been made. We have struck cuttings, and will examine the plants further when they flower.—Ed.]

Proclaimed Weeds in Tasmania.—No doubt it has occurred to nearly every gardener that life would be comparatively Utopian without the aggressiveness of noxious weeds. Do gardens exist in which they are not very troublesome? I remember one large garden in which their entire absence was singularly striking, but that was the property of one of the richest men on earth, and was unusually lavishly staffed. Perhaps English gardeners will regard it as rather cheering intelligence that in even a slightly more genial climate weeds are much more troublesome. Further, in England exotic weeds are a comparatively trifling matter; but, so far as my small experience goes, in Australasia they together exceed the native plants in viciousness. Attempts at weed suppression are an interesting feature of Tasmanian

legislation. The laws in force may be summarised thus: Occupiers of land upon which Californian Thistles, White Weed, Burdock, Onion Weed, Rape Weed, Hemlock, Charlock, Viper's Bugloss, Broomrape, Stinking Weed and Slender Thistle may be growing must cut them down so as to prevent their blossoming, or they will be liable to a penalty not exceeding £20. Such weeds growing upon Crown lands must be cut down by the Crown. Trustees of road districts must cut down all such weeds growing upon all roads in their respective districts. Inspectors and persons authorised may enter upon land to search for such weeds, and if the occupier fails to cut them down, the inspector may employ persons for that purpose at the expense of the occupier. Only the three weeds

first mentioned are proclaimed throughout the State; the others merely in certain districts. In theory this is admirable, but, alas, apparently the law is not sufficiently rigorously enforced for the good effects to be very noticeable. At least I can certify that Californian Thistles in Tasmania defy the law even more successfully than the rabbits, which have likewise been legislated against; but the law's attack on Codlin moth proved very successful. Moreover, the selection of proclaimed weeds is open to criticism. I was surprised at the inclusion of Viper's Bugloss (*Echium vulgare*), a plant which beautifies the Dorset cliffs in early summer, and am told on good authority that it is, in truth, a rare plant in Tasmania. It is, however, certainly to the



PRIMULA HELODOXA IN ITS NATIVE HABITAT.

credit of this little colony to have at least officially attempted to grapple with such a serious and universal problem. It is my opinion that the man who could initiate efforts which would rid a country of even one weed would merit undying fame. It is a thing which many people hanker after, so here is an opportunity for them.—ARTHUR GARNETT, *Cambridge, Tasmania*.

FORTHCOMING EVENTS

August 1.—Royal Horticultural Society's Meeting and Exhibition of Home-grown Flower Bulbs at Vincent Square, Westminster.

August 3.—Manchester and North of England Orchid Society's Exhibition.

PRIMULA HELODOXA (BALF. FIL.)

BY G. FORREST.

THE Candelabra section of *Primula* has given us some of our most ornamental and easily cultivated Primroses. Stately in growth and rich in colouring, from the deep blood crimson of *P. anisodora* through innumerable shades of rose and orange to the clearest yellow, they are wonderfully effective when grown in masses. All of the species are gregarious, plants of moist meadows, or even marshland, in stony or extremely fibrous soil, where there is a free percolation of moisture. All are lovers of bright sunshine. Most of them have their homes in the mountains and Alps of Central and West China at altitudes of from 6,000 feet to 12,000 feet.

The latest addition, and one of the finest, is *P. helodoxa*, from the extreme west of the province of Yunnan. It was discovered in 1912 on the foot-hills around Tengyueh growing in abundance on gritty, clayey pasture land by streams and marshy meadows at about 6,000 feet altitude. It grows in the most open situations, wind-swept and unsheltered, and is the dominant species of the region, to the exclusion even of the charming and most prolific *P. Poissonii*. It is a local plant, so far never having been found elsewhere in the province.

The plants vary considerably in height, from 15 inches to 30 inches. The foliage is freely produced in loose rosettes, is of a clear light green, and entirely glabrous, as are all other parts of the plant. The leaves are large, 6 inches to 9 inches by 2½ inches to 3½ inches, broadly ovate or obovate, margins shortly dentate, upper surface deeply wrinkled, with the veining very prominent on the under surface, petioles broadly winged. The scapes are stout, two to four, or even a greater number, to each plant, each bearing from four to eight whorls of blooms with from eight to sixteen, or even

twenty, blooms to the whorl. The bracts, about a third of an inch to half an inch in length, are awl-shaped, stiff and erect; the pedicels stout, from three-quarters of an inch to an inch. Calyx widely cup-shaped, short, a quarter of an inch or less, with narrow, short teeth, the exterior sparingly coated with light yellow farina. Corolla tube five-eighths of an inch, somewhat widely tapered from base; the limb 1½ inches to 1¾ inches broad, deeply divided; the segments broadly obcordate. Capsule flatly globose.

The flowers are of a most beautiful shade of chrome yellow, soft and velvety, in substance resembling that of an *Auricula* bloom. The exact shade may be seen on Sheet 20, tone 3, of the "Répertoire de Couleurs." They have a

delightfully aromatic fragrance. Coming from such a locality, almost on the fringe of a subtropical region, for the Tengyueh basin drains into the Irrawaddy, and from such a low altitude, one would naturally have grave doubts regarding the hardiness of *P. helodoxa*. However, strange to say, it has proved one of the hardiest, passing scathless through the ordeal of the past exceptionally severe winter in the



PRIMULA HELODOXA.

Showing the habit of flowering.

most exposed situations of the Edinburgh Botanic Garden, when others of its class, such as *P. Beesiana* and *P. Bulleyana*, were severely shaken. The species fruits freely, and there seems little doubt that in a few years' time it will be widely established as one of our most charming and hardy garden plants. If it has any failing, it is that, if grown in too rich a [soil or under glass, it becomes

somewhat leggy. That, however, may be avoided by planting it in a natural situation among grass in the open where there is an adequate supply of moisture. In its natural habitat the species flowers from early April till June or even July. The stock is held by Messrs. Wallace and Co., Colchester.

THE PICHE OF CHILE

(FABIANA IMBRICATA.)

A PLANT that might be much more frequently seen in gardens than is the case is *Fabiana imbricata*. Especially might this be so in warm, sheltered positions in other than our Southern or Western Counties, where the plant is not unknown either as a greenhouse plant or for outside growth for the sake of its free-flowering habit, which much resembles that of a Heath both in flower and foliage, though, in fact, it belongs to the Natural Order Solanaceæ, and is thus botanically related to the Potato and the Tobacco. From its shrubby habit it forms a very attractive plant for a sheltered border, being of quick growth, with drooping, pure white flowers. It thrives in almost any soil and is readily increased from cuttings. About five years ago I planted a small plant in a border on the west side of an east wall. This plant has now attained a height of about 6 feet, with a spread of branches of about 3 feet, starting at about 2 feet from the ground, the whole mass having a fine effect.

The plant is a native of Chile, Peru and the Argentine Republic, and was introduced to this country in 1838. In 1886 it attracted some notice in this country as a new medicinal plant under the name of Piche, being recommended in the treatment of lumbago, sciatica, rheumatic neuralgia, irritability of the bladder and similar affections.

Claremont, Lymington. JOHN R. JACKSON.

ARISARUM PROBOSCIDEUM

IN several parts of my garden the singular little Aroid named *Arisarum proboscideum* has been in bloom for some time. It cannot well be called a flower for the many, yet it is one which invariably attracts the interest of all. I first saw it many years ago in the garden of the late Mr. John Wood of Kirkstall, Leeds, father of the gentleman of the same name now at Boston Spa, Yorkshire, and it has been in my gardens ever since. From the one little plant then secured I have now a considerable number here and there, and giving me pleasure with their glossy green, arrow-shaped leaves even when not in bloom. These are only a few inches above the soil. From among the foliage there rise curious brown thread-like filaments, which, on investigation, guide one to the singular flowers below, of which these are the tail-like appendages. The bulk of the flower is quite Aroid-like in its form, and is of chocolate brown and white, with the long tails of deep chocolate brown. For those who would like to have a more playful yet graphic description of the appearance of *Arisarum proboscideum*, I should recommend a perusal of Mr. Reginald Farrer's notes on pages 148-9 of his "Alpines and Bog Plants." This singular plant seems to be almost eclectic in its tastes, as it will thrive in the crevices of a wall or rock garden, is at home in a moraine, and in the bog garden flourishes as well.

Those who can appreciate singularity in flower, and who wish to interest others in botanical studies, should not fail to cultivate this little South European Aroid, which is perfectly hardy.

Dumfries.

S. ARNOTT

DWARF POLYANTH ROSES

RECENTLY a good deal of attention has been given to the Dwarf Polyantha Roses, a race that is particularly useful for filling large beds, owing to the fact that the plants make neat compact bushes, many of which are almost evergreen, and their freedom of flowering. Some time ago, when visiting some large Rose nurseries in the Midlands, I was reminded of the value of these Roses for autumn effect, row after row of goodly length being almost hidden with the large clusters of small, rosette-like flowers. For varieties were particularly noticeable, these being *Jessie*, *Phyllis*, *Orleans* and *Katherine Zeimet*. The first named is the most beautiful of all, the blossoms being deep glowing crimson scarlet in colour, yet not sufficiently glaring to be objectionable. *Phyllis* has dainty rose pink flowers, a colour that *Orleans* also shares, but in the latter variety the blossoms are rather larger, and the bushes a little taller. Although *Orleans* is very beautiful in autumn, the blossoms bleach rather badly during the hot days of a normal summer, hence some care is necessary in using it in very sunny districts, unless an autumn display only is required. *Katherine Zeimet* has pure white flowers, which are deliciously sweet-scented, a character that the others named unfortunately do not possess in any great degree.

Having once seen the beautiful colour effect that these little Roses will produce, it is difficult to understand why they are not more freely used in large lawn beds in place of the heterogeneous mixtures of bedding plants that one often finds in many of our large gardens. In a circular bed some 10 yards or 12 yards in diameter might be thickly planted with *Jessie*, leaving a yard or so in width at the edge for *Katherine Zeimet*. If ordinarily well grown the bush would commence to flower early in July and continue right through the late summer and autumn until frosts put a check on the career.

In previous years I have gathered good sprays from *Jessie* at the end of November, long after the ordinary bedding plants had been destroyed by frost. *Phyllis* or *Orleans* could be planted in association with Lavender, either in a margin to stone pathways, at the top of retaining walls, or in large beds, in the proportion of two Roses to one of Lavender, the latter to be the common steel blue flowered variety. These colours create a delightful harmony, which is scarcely broken even when the Lavender flowers are past the glaucous grey tint of the foliage having almost similar effect. Although the initial cost of planting beds with these Roses, or Roses and Lavender, will be rather more than that of Geraniums and other soft-wooded plants, this will be more than compensated by the number of years that the Roses last in good condition. Apart from aphides, the Dwarf Polyantha Rose is not



THE FRAGRANT LACHENALIA ORCHIOIDES GROWING WILD IN SOUTH AFRICA.

usually seriously affected by other ills that the Rose is heir to, a point that is well worth taking into consideration when planning a Rose garden. A. B.

LACHENALIAS

BY THE REV. JOSEPH JACOB.

"There is a tide in the affairs of men,
Which taken at the flood, leads on to fortune."
"Ill blows the wind that profits nobody."

HERE are two facts. (1) The prohibition of the importation of all foreign-grown bulbs, except those raised in the country of an Ally, must mean that there will not be nearly so many to go round, and even allowing for war-time saving, some buyers will very likely have to go short of their old favourites. (2) There is a little-known family of plants, the Lachenalias, which have for years been patiently waiting for admittance into the charmed circle of bulbs in the general bulb order. They are easily grown and propagated. They have a quiet and pleasing beauty of their own. They are Marathon runners in their lasting powers in either a growing or a cut state—and yet they have never caught on.

I plead for readers to give them a chance this autumn and do them well. Pot up when the grouse shooting season begins, or as soon after as possible. Use a compost of old rotted cow-manure, virgin loam, peat or leaf-mould and coarse silver sand in equal parts. Stand in a cold frame until mid-November, then place them in an airy, cool glass-house with a temperature of about 45° to 50°, and in February they will bloom.

Pendula is an exception in this respect, as with similar treatment it will flower about Christmas, when its red, dark-edged bells are very welcome. Everyone may safely start with Nelsonii, as it is the best of the older varieties. Cawston Gem and luteola maculata make good companions. Among what may euphemistically be called the newer ones, I would suggest Brightness (wide claret red edge), Ruth Lane (red edge, late in flowering), Rose Barton (very lovely deep shade of yellow), and His Reverence (pale yellow and green). Then for the folk who like to please their noses, both orchioides and glaucina should, if possible, be included, although I very much fear it will be a difficult matter to meet with them in our British bulb lists. The former has flowers more or less of a yellowish green shade, while in the latter they run the changes in electric blue, and their scent is like that of Lily of the Valley.

I ought, perhaps, to say that, for some reason or other, bulbs of these species often refuse to stir for a whole year; hence it is well to put more in a pot than if every one could be depended upon to come up. Another "tip" to remember is that while Lachenalias want plenty of air, they dislike intensely any draught, and special care must always be taken to place the pots where none will reach them.

Readers who are unfamiliar with these South African plants—Cape Cow-slips is their popular name—may well wonder why they have never become better known. The reply is the same as that to Bishop Stubbs' riddle after he had left Chester and gone to Oxford: "Why am I," he said, "like Homer? Because I have suffered by translation." Lachenalias suffer by translation. Only on rare occasions is there an exhibit of them at Vincent Square which does them justice, and then it is of Nelsonii, except once, when it was of pendula.

A collection of the very best varieties, well grown, well staged, and of sufficient dimensions to create a sense of becoming importance, might so change things that the poor little Cinderella of to-day might afterwards be judged worthy of a place beside her haughty sisters Hyacinthia, Tulipa and Miss Daffadowndilly.

THE HOLLYHOCK DISEASE

THE dreaded Hollyhock fungus (*Puccinia malvaearum*) is, unfortunately, prevalent in many gardens this summer. It is particularly noticeable on old plants, while young plants, if not entirely free, are certainly less liable to attack. For this reason it is recommended that plants should be raised every year. The disease may be kept in check by spraying with a solution of Condry's Fluid or permanganate of potash, and also with a mixture of soft soap and sulphur dissolved in water. Messrs. Webb and Brand, the well-known Hollyhock specialists, use the following mixture: Slake one peck of lime, and when cool add one peck of soot, 1 lb. of flowers of sulphur and half an ounce of sulphate of copper (finely powdered). Pass the mixture through a fine sieve and dust the plants well over with it three or four times during the growing season, preferably early in the day while the dew is still on the plants.

A GOOD ALL-ROUND ROSE

I CAN safely say that no Rose has given me better blooms this season than Gustav Grunerwald. Its large, full, cup-shaped flowers, laden with the richest and sweetest fragrance the Rose can produce, have been, and are still, one of the great joys of the Rose garden. I see that it is described in one or two of the modern works as a yellowish Rose, but this must be a mistake. With me it is a delightful clear pink, and the yellow at the base of its broad petals is quite hidden from view until the flowers are full blown. It is a Hybrid Tea that makes a splendid bush, and although it may not be as free flowering as some bedding Roses, it should be grown in every garden for its beautiful colour, form and fragrance. C.



ROSE GUSTAV GRUNERWALD.

LILIUM GIGANTEUM & ITS TREATMENT AT WISLEY

AT the present time an interesting and necessary operation is being conducted with this stately Lily in the Royal Horticultural Society's Gardens at Wisley. As many readers of *THE GARDEN* are aware, this subject provides one of the features of these picturesque gardens during late June and early July, and is unequalled by any other plant in its unique combination of beauty and graceful magnificence. The shady wild garden and the well-drained peat and leafy soil provide the exact location for *Lilium giganteum*, where, scattered among the innumerable plants of *Primula japonica*, the thick undergrowth of light green foliage shows up the flowers to the best advantage. The soil is moist without being stagnant, and under these ideal conditions the spikes of blooms produce a most charming effect, while the large trumpet-shaped flowers last much longer than when the plants are given a more exposed situation.

Directly the last flower fades the plants are uprooted, as the old bulb decays and disappears, leaving several offsets. Each offset is provided with two large heart-shaped leaves, and on an average one specimen produces about half a dozen bulbils. These are severed from the parent plant and placed at a depth of a few inches in their flowering positions. Left undisturbed, these plants produce flowers in four years' time, when the operation is repeated. Thus, when this division is carried out annually, as it is at Wisley, a display of fragrant flowers is guaranteed for each year.

It is the general impression that this species is one of the most difficult to cultivate. The reason of this, I think, is because when one wishes to grow this Lily the bulbs are not received or planted until late autumn or early spring. These bulbs often remain dormant until the following summer, because the basal roots on which the flower-stem must depend entirely for its support have been cut off or dried up by exposure to air, and consequently the bulbs are so weakened that it takes a year or more to recover new roots. It often occurs, however, that a small, weak stem develops the first summer, which soon perishes, without flowering. *Lilium giganteum* is a non-stem-rooting species and unlike the stem-rooting species, such as *L. auratum*, *L. Hansonii*, *L. regale*, *L. croceum*, &c., which throw out annual fibrous roots from the underground stem above the bulb, called stem roots, in addition to the permanent ones at the base, called basal or bulb roots. Thus these species usually bloom well the first summer after planting, because, even if the bulbs do not produce roots, they are formed at the base of the stem, which is nourished and supported by them. The key, then, to the successful cultivation of

L. giganteum is to take off the small plants produced at the base of the flowering stem and, without allowing the bulbs to dry or the leaves to wither, place them in their flowering quarters.

J. K. RAMSBOTTOM.

PRETTY EFFECTS IN THE GARDEN

THE Editor has asked for notes of these (*THE GARDEN*, April 8), and I venture to describe



LILIUM GIGANTEUM IN THE SHADY WILD GARDEN AT WISLEY.

one or two I have grown to love very much. In front of a raised border, and at the edge of its low retaining wall, is a large mass of *Geranium armenum*, a yard or more across, flanked by a well-grown bush of *Rosemary*, planted at a somewhat lower level. At its feet, and continued along the wall for 20 feet or more, are masses of *Thymus Serpyllum*, *Sedum album*, *Aubrietia Bridesmaid*, *Sea Pinks* in two good shades, rock and garden *Pinks*, *Santolina*, *Acæna Buchananii*, silvery *Saxifrages*, and, at intervals of 3 yards or so, more bushes of *Rosemary* and an occasional *Lavender* bush. For background

there is a confused mass of greenery, chiefly *Flag Irises*, from which the dead flowers have been removed, and further back a *Golden Privet* and a *Holly* hedge. Though the *Geranium* does rejoice (as Mr. Bowles says) "in that awful form of floral original sin, magenta," it is a fine plant and dominates the situation. There is here no jarring note; the range of colour from this through the *Thymes*, *Pinks* and *Aubrietia* is quite perfect. Forbes Watson would tell us, could he open the golden gates, that the rich soft green of the *Rosemary* is here the more satisfying because one is always thinking of the silvery under side of the

leaf, which tones so perfectly with the other grey-foliaged plants. There is such a thing as overcrowding a summer border with colour, and this July effect is very peaceful.

Quite different is the further end of this long border, where masses of *Lilium pardalinum* and *Delphiniums* in deep and paler blues, with *Inula grandiflora* in the foreground, give the necessary colour. For filling, there are more *Flag Irises* and three or four low bush *Ivies* of the golden variety, whose note is repeated in a creeping variegated *Ivy* which clothes the rocky front, where it is here drawn out into points. One or two spires of *Lilium Martagon album* are effective beside an *Ivy* bush, and I should like to add, near the *Inula*, some *Dropmore* and *Opal Anchusas* as I saw them growing recently in a beautiful *Worcestershire* garden, not stiffly tied up, but in a loosely falling mass. Their true blues would be just right here. The low wall is here chiefly planted with *Campanula pulla* in blue and white, the white and golden *Stonecrops*, and some silvery *Saxifrages*. Though rich in colour, this border, too, gains by a certain quiet restraint, and is equally pretty in early June, when the *Irises*, all pale yellows or gold and browns, blend equally well with the *Ivies*. W. D.

THE BOG-BEAN

AMONG plants for shallow pools and bog gardens I have not yet found one the flowers of which appeal to me more strongly than those of the Bog-bean (*Menyanthes trifoliata*). Happily, this modest-looking plant is a native of this country, though, owing to its increasing scarcity in a wild state, its beautiful flowers are not very familiar. When in a bog, which appears to be more suitable

for it than a pool, the flowers are borne on stout stems a few inches high, and the colour is a charming combination of white and soft shell pink. Added to this, the flowers are beautifully fringed, and the stems are mainly underground, stout, and of considerable strength. In early summer this is a plant to look for in bogs and pools, and, once found, it will be eagerly sought for year after year. Fortunately, many plant specialists now supply roots of the Bog-bean. It spreads freely, however, when established, and for that reason should not be planted close to things of more weakly growth.

H.

THE HERBACEOUS BORDER IN THE TOWN GARDEN

BY NORMAN G. HADDEN.

THE smaller the amount of space at his disposal, the more important is it for the gardener to utilise it to the best possible advantage and to grow only the best subjects in each class. A small garden, in which every plant has been selected for some particular merit, undoubtedly affords its owner infinitely more pleasure than the usual hotch-potch of superfluous rubbish showered upon a new tenant by kind friends. Elaborate colour schemes or borders assigned to particular months are rarely a success where space is a serious consideration, and in a really small garden it is advisable to choose easily grown subjects likely to provide flowers over as long a period as possible. Most small gardens are laid out with a narrow strip of border (too often impoverished by roots of Laurel or Privet) and a lawn which is too small for either tennis or croquet. Excellent use may be made of this lawn by forming a wide herbaceous border along two sides of it, while the remaining turf will make a capital setting for the flowers. Rather than fill up with coarse, unworthy plants, it is better to use only half the available space the first season. Assuming that hardy perennials are to be the mainstay of the border, it becomes imperative to exclude the very rampant and the capricious species which are likely to disappoint. Never buy an inferior variety if it is possible to obtain a better; the best always pays in the long run.

Never dot the plants about indiscriminately; group several together whenever possible. This is the golden rule for a successful display in the smallest as well as in the noblest garden. Avoid the association of flowers whose colours are likely to clash; for instance, *Incarvillea Delavayi* and *Heuchera brizoides gracillima* grown in proximity produce a horrible discord, though either associated with white flowers is exquisite. Do not allow any of the stronger subjects to exceed their allotted space; overcrowding is fatal to success. Sufficient space should be allowed between the plants to keep the surface well hoed. Never permit any plant to become a tangled mass of stems; the strong-growing Asters of the Climax type do best when lifted annually and divided. Each strong, young shoot may be separately planted and the weak, old growths thrown away. The small-flowered Asters of the cordifolius section may well receive similar treatment every alternate year. Phloxes also thrive much better when young and vigorous; the young shoots strike readily in spring in a cold frame. Delphiniums and Pæonies are better left undisturbed for several years, provided they look healthy and are in good soil.

Individual taste will naturally play the leading part in the choice of plants for the small border, and there are now shades sufficient to satisfy the

most critical in modern Delphiniums, Asters, Chinese Pæonies, Phloxes, Oriental Poppies, &c. Among other very desirable subjects may be mentioned *Campanula persicifolia humosa*, *C. lactiflora* (a noble plant for the back of the border), *Anemone japonica* Queen Charlotte and Whirlwind, *Heuchera brizoides gracillima* (very free flowering), *Chrysanthemum maximum* Mrs. Charles Lowthian Bell, *Incarvillea Delavayi*, *I. grandiflora brevipes*, *Lilium candidum*, *L. tigrinum*, *Pentstemon heterophyllus* (lovely turquoise blue), *Iris pallida dalmatica*, *Phlox Laphamii* (invaluable for cutting in spring), the new *Phlox Arendsii* hybrids, the double Scotch Rocket, and *Anchusa italica* Dropmore and Opal.

a good instance of a happy association. While the Lilies are in bloom the *Gypsophila* foliage breaks up the outline of their somewhat bare stems, and no sooner are they cut down than the billowy masses of *Gypsophila* flowers completely conceal the gap.

Such plants as early Chrysanthemums, Violets, Lily of the Valley and Carnations, which are grown almost entirely for cutting, are not well adapted to the mixed herbaceous border; whenever possible, they should be given separate beds. Sweet Peas also are rather out of place among hardy perennials, as they require so much attention daily in removing dead blooms. It is more satisfactory to dispense with these plants altogether, rather than spoil the effect of a border solely devoted to choice perennials.

THE SIBERIAN IRIS

Now that this charming Iris has passed out of bloom, it may be successfully divided and



SIBERIAN IRISES BY THE WATER-SIDE AT FRIAR PARK.

Several groups of May-flowering and Darwin Tulips should be included for spring effect; they should be lifted at least every other year to avoid overcrowding and deterioration. Pride of Haarlem, Inglescombe Scarlet, Clara Butt, Gesneriana major, *G. lutea* and *retroflexa* are all exquisite, easily grown and cheap. When the Tulips die down, a light-growing annual may be sown so as to conceal the bare soil. Such plants as *Campanula carpatica* Riverslea, Pink Mrs. Sinkins and border Auriculas are precious for the front of the border, especially if grown in large groups. Where Gentian thrives it makes an admirable edging to the border, though care must, of course, be taken that it is never over-spread by other plants. Once firmly planted, the smallest bit soon forms a good clump.

Tall subjects at the back, dwarf ones in front, must be the general rule, but stiffness should be avoided at all costs. A group of *Lilium candidum* at the back of the border, with *Gypsophila paniculata* fl.-pl. immediately in front of it, affords

transplanted. Although a moisture-loving plant it prefers not to be planted in water, but rather on the margin of stream or lake. It is a sun-loving plant above all else, but it is not in the least fastidious about soil. The greatest success, however, may be looked for in a rich, moist soil. In association with water it makes a glorious display from the middle of May till late in June. The usual method of propagation is to lift and divide the clumps during July. These clumps should not be divided with the spade, but with hand forks, so that the roots are injured as little as possible. The newly planted clumps require watering several times a week after planting until established.

The Siberian Iris may also be raised from seed, which should be sown as soon as it is ripe. As it takes about three years to flower from seed, propagation by division of the roots is generally preferred. The accompanying illustration shows a delightful grouping of the Siberian Iris by the water-side at Friar Park, Henley-on-Thames.

PRIMULA OBCONICA CHENIES GIANT STRAIN

WE again have pleasure in referring to the wonderful strain of *Primula obconica* raised by Mr. John Dickson, gardener to Adeline Duchess of Bedford, and known as Chenies Giant Hybrids. The individual blooms are more than 2 inches across and range

of bloom standing well above the foliage. One is naturally led to enquire the means whereby this strain has been brought to such a high standard of excellence. Mr. Dickson explains that this has been accomplished by continued efforts in crossing *P. sinensis* with the improved forms of *P. obconica*. This raises an interesting point, for it has been stated on scientific grounds that *P. obconica* has never been crossed with any other species, and we must say that we have never heard anyone claim to have a hybrid by employing

result from selection alone. In the illustration on this page we have a plant bearing a strong resemblance to *P. sinensis*, and yet it was obtained from a seed-pod of *P. obconica*. We shall be very much surprised if this plant is not accepted as a hybrid between these two species, and if it is so, it will be the first authentic instance on record. The flowers of this plant resemble those of the garden form of *P. sinensis*—they are borne in one whorl and on a much thicker stem than is the case with *P. obconica*; while the foliage in many ways resembles *P. sinensis* and is of the same texture. Whether Mr. Dickson has or has not succeeded in crossing these two species is a question we hope will be cleared up before long; but one thing is certain, and that is, by continued efforts he has succeeded in raising an excellent strain of flowers. The strain has now been secured by the wholesale firm of Messrs. Hurst and Son, and seed may be obtained through any of the leading seedsmen in any part of the British Isles.



AN ALLEGED HYBRID BETWEEN PRIMULA OBCONICA AND P. SINENSIS.

in colour from dark carmine to beautiful shell pink, while there is also a grand strain known as Chenies Blue, the flowers of which are of a delightful mauve-blue shade and produced in great profusion. A visit to the gardens at Chenies, Bucks, when the Primulas are at their best, is quite a revelation to anyone who is not acquainted with the developments of this greenhouse flower. The plants, without exception, are compact and strong growing, with very large foliage and huge trusses

P. obconica as the pollen plant. In the Chenies strain *P. obconica* has been used as the seed-bearing parent, and it certainly looks as though *P. sinensis* has a very marked influence in the development of this strain.

The illustration on the opposite page represents a typical plant of the Chenies strain, and although it is thought to have in it the blood of *P. sinensis*, yet it is possible to conceive that this development in flower and leaf might be the

YUCCAS FOR ENGLISH GARDENS

OWING to a widespread belief that Yuccas are natives of dry desert and tropical regions, these plants are more often than not given the driest possible position, and water is strictly kept from them. Now, it is true we are not likely to find a position too sunny for them—a warm, sunny bank sloping to the south is just an ideal place for them—yet in the growing season these plants most assuredly appreciate copious supplies of water both overhead and at the roots. When making growth Yuccas require as much water as, for instance, Geraniums. It is true that they will manage to exist, and perhaps look fairly happy, with very little water, and the same may be said of Geraniums; but how readily both of these plants respond to a good supply of water in the summer months, and how much better off they are for it!

Yuccas are very easily propagated from the sucker-like growths usually formed around the base of the plants. If these are detached they root very well in a shady place, although the better plan is to give the suckers a little bottom-heat in a propagating-frame and to root them in a soil mainly composed of silver sand, the remainder being loam. Another mode of increase is to partly break off these basal growths and to then draw a light, sandy soil around them. The young growths will quickly root into this medium, when they may be severed and established on their own roots. Seeds of any of the species are rarely, if ever, produced in this country, so that we have to resort to vegetative means of reproduction. Root cuttings form another mode of increase. This is accomplished by cutting into sections the thick, fleshy roots and inserting them in sandy soil in heat. The same method of propagation is often adopted for *Dracenas*, to which the Yuccas are allied.

Yuccas form a very imposing feature in many English gardens. They are singularly well suited for planting on sunny slopes in association with the silvery Pampas Grass, New Zealand Flax (*Phormium tenax*) and Eucalyptus *Gunnii*, with its graceful silvery foliage. Some of the Yuccas, however, are probably hardier than any of the

plants here mentioned. We know of groups of *Yucca filamentosa* that have stood 28° of frost without the least sign of injury. This, by the way, is the best of all the *Yuccas* for the flower garden. Like all other members of the genus, it does best in a rich, light soil and the sunniest of positions. Its time of flowering is usually August and September, but it flowers at a much earlier age than *Yucca gloriosa*, and it is not unusual to see quite young plants overburdened with their load of ivory white flowers. The leaves of this species have whitish margins clothed with thread-like filaments; hence its popular name Silk Grass and its specific name *filamentosa*. *Yuccas* have many popular names, the best known being Adam's Needle, while in some parts they are called Bear's Grass and Spanish Bayonet.

Yucca angustifolia, the Narrow-leaved Adam's Needle as it has been appropriately named, is a modest plant in growth, with long, narrow leaves, and sends up a flower-spike about 3 feet in height. It is seen to the best advantage when planted in the rock garden. *Y. recurva* is perhaps the most graceful of them all, and when grown in groups upon a lawn it is very handsome, the green foliage being at all times very imposing. *Y. flaccida* is looked upon as a variety of *Y. filamentosa*. It is slenderer than the type and flowers more freely. C.

POND WEEDS AND COPPER SULPHATE

DURING the past two weeks we have received many complaints from various parts of the country about the presence of a slimy-looking scum upon the surface of ponds, lakes, tanks and reservoirs. "Our pond," writes one in great distress, "is this year invaded with a hateful green slimy weed which grows upon the bottom, clogging up all other plants, and gives off a brownish scum which smells vilely. I am told that sulphate of copper will kill the weed, but do not know what strength should be used or how it will affect the trout with which the pond is stocked." The scum is caused by various kinds of *Algæ*, low orders of plant life allied to sea weeds, and one common kind is popularly called Flannel-weed, on account of its matted, thread-like growth. This growth is sometimes raked out of the water, but this is only a temporary relief, for we have known ponds to be as bad as ever after a few weeks; neither does cleaning out prevent the recurrence of scum.

As the result of experiments it has been found that copper sulphate is the most satisfactory chemical to use. It must, however, be used with care, for it is highly poisonous in its action; one part to 1,000,000 parts of water is sufficient to kill the *Algæ*, but one part in 750,000 parts of water causes no injury to Water Lilies nor to fish. In fact, a report from America states that goldfish and minnows live indefinitely in a concentration of one part to 200,000, whereas some of the coarser fish will stand one in 50,000 concentration; but this has proved too strong for certain delicate kinds. Copper sulphate may be applied in solution by spraying over the surface of the pond, or by tying the crystals in a canvas bag and drawing them through the water until dissolved. In the first place, the holding capacity

of the pond must be ascertained—the weight of the water may be taken at about 62½ lb. to the cubic foot—and the copper sulphate used in proportion. On no account should it be used stronger than one part in 750,000 concentration.

NEW AND RARE PLANTS

FIRST-CLASS CERTIFICATE.

Lælio-Cattleya Momus (*Cattleya Octave Doin* × *Lælio-Cattleya Lambeauianum*).—A lovely

wholly pink save for the white centre and clear yellow disc. Both of these were from Messrs. Armstrong and Brown, Tunbridge Wells.

Sweet Pea Crimson Queen.—The name is descriptive of an excellent variety and of a welcome shade of colour. From Messrs. Hobbies and Co., Dereham.

Campanula Waldsteiniana.—This alpine gem from Croatia has long been known to gardeners for its rare beauty and distinction; hence its recognition to high honour would appear to have been rather long delayed. Three inches high or so, the erect, pale violet flowers are rendered



A TYPICAL PLANT OF PRIMULA OBCONICA CHENIES STRAIN.

hybrid having exceptionally broad, ovate sepals and petals of rich rosy hue, and purplish crimson lip with yellow throat. From Messrs. Charlesworth and Co., Hayward's Heath.

AWARDS OF MERIT.

Cattleya Saturn Orchidhurst Variety (*C. O'Brieniana alba* × *C. Gaskelliana alba*).—A well-set-up hybrid practically intermediate between the parents and of pure white colour. It is very chaste and beautiful.

Miltonia vexillaria Dreadnought.—A very handsome variety, the flowers, 4 inches across,

distinct by the purplish-coloured ovaries, the small, somewhat glaucous leaves all but hidden by the crowd of blossoms.

Campanula Chastity.—As shown this is a dwarf pure white form of *C. carpatica*. Both were from Messrs. Grove, Sutton Coldfield.

Nemesia Orange Prince.—A very beautiful addition, the intense orange-coloured flowers being of exceptional size.

Sweet Pea Anzac.—This remarkable bicolor is somewhat in the colour range of Mark's Tey, though quite distinct therefrom. Standards dark reddish lilac, externally maroon; wings

mauve-blue. These were from Messrs. Dobbie and Co., Edinburgh.

Sweet Pea Faith.—An exquisite shade of lavender, practically all the sprays four-flowered. Very beautiful and quite distinct.

Sweet Pea Honour Bright.—A brilliant and striking variety of a salmon scarlet tone, of unusual intensity in the standard. These were shown by Mr. J. Stevenson, Wimborne.

Aconitum Napellus alba grandiflora.—A particularly tall and good white form of this well-known plant.

Lavender Large-flowered Munstead Dwarf.—The name is partly descriptive of a good variety which is also very free in flowering. Shown by Messrs. Barr and Sons, Covent Garden, W.C.

The foregoing novelties were exhibited before the Royal Horticultural Society on July 18, when the awards were made.

GOLD MEDAL ROSES.

Emily Gray (Wichuraiana—decorative or pillar Rose).—The colour is canary yellow, and very welcome in this section. From the raiser, Dr. A. H. Williams, Harrow.

Donald McDonald (H.T.).—Colour reddish scarlet, flowers fragrant. Hardly up to gold medal standard, we thought.

"K. of K." (H.T.).—Semi-double, intense velvety scarlet. A glorious Rose worthy of the high award.

Janet (H.T.).—The raisers describe this in elaborate detail, which we cannot follow. It is double, buff yellow, shaded pale apricot. These three were shown by Messrs. Alex. Dickson and Sons, Limited, Newtownards, County Down.

Miss Willmott (H.T.).—A shapely, well-proportioned Rose of rich cream colour, the rose-tipped petals endowing it with great charm. A variety of refinement and beauty.

Flame of Fire (H.T.) is the distinctive name to what at sight we styled "a glorified Herriot." Its raisers call it "pure orange flame," whatever that may be. The expanded blooms are gorgeous in the extreme, the golden bases to the petals emphasising the intense colour prevailing. Scheduled as a bedding and decorative variety, it is a Rose for the million. It is also fragrant.

Gladys Holland (H.T.).—Shapely and beautiful, cream in colour, reverse of petals salmon rose; fragrant. Regarded as a greatly improved Mrs. Theodore Roosevelt. These three were shown by Messrs. Samuel McGredy and Son, Royal Nurseries, Portadown, Ireland.

Mrs. Hugh Dickson (H.T.).—Cream colour with apricot base. A very beautiful Rose.

Ulster Gem.—A lovely single of creamy white with gold anthers, and very attractive. These were shown by Messrs. Hugh Dickson and Sons, Belfast.

The foregoing Roses were adjudicated upon by the National Rose Society at its special meeting held in conjunction with the fortnightly exhibition of the Royal Horticultural Society on July 18.

FIGS IN POTS

By E. A. BUNYARD, F.L.S.

AMONG the fruits which we gather in our gardens, the Fig shares with the Vine the honour due to the oldest inhabitant. We cannot but treat with respect a fruit which has seen the pageant of the world's history pass by. Sen-nacherib in his chariot, the Empires of Egypt and Rome came and went their way while the Fig looked on unmoved. It would be interesting to collect instances where the Fig has been brought into prominence in history. Cato's dramatic production of a Carthaginian fruit before the

Italian proverb which speaks of the Fig as *innamorata del pietre e citerne*—stones and water! The necessary sunlight is taken for granted in Italy, but here we must gather all we can by placing the pots near to the glass. It is a common mistake to think the Fig, coming from a hot climate, does not require much water; a glance at its luxuriant foliage should show it is a water-loving plant. Like the Date Palm it likes its head in the sun and its roots in the water.

A turfy loam with some mortar rubble serves as a good potting soil, and rich manure should not be added unless the growth is poor. A hard, moderate growth is what is desired for fruit production, and a cool greenhouse where plenty of air can be given suits it admirably. Small, bushy plants are best for the beginner, but if the house is lofty, standards will be useful as a means of getting near to the glass.

The varieties of the Fig are numerous, 300 being described in one elaborate monograph, but for our purpose half a dozen should suffice. For a good all round fruit Brown Turkey still holds the first place. As there is a great doubt if it comes from an enemy country, patriotic feeling need not be violated. White Marseilles comes next in point of popularity, and is generally the first to ripen; though called white it is really pale green. It was for many years a puzzle to me why Figs are so often called black or white when they are green, brown or purplish brown. However, in a recent book of Italian travel, I came across a possible explanation. In the South of Italy, the country *par excellence* of the Fig, it seems that the colour sense of the inhabitants is extremely limited. Blue is out of their range and dark colours are generally called black, while green and yellow are called white. The Mediterranean blue is lost to the native, who calls it lead colour! As the Fig in its westward travels passed from Asia to Italian shores, it seems likely that here it found its names of black and white. But to resume. The two Ischias, Black and White, should be included in every collection; "small but good" will be the verdict of those who try them. In my opinion there exists

nothing more delicious in the Fig realm, and as they are both prolific croppers, they will supply all needs save those of the exhibition table, that altar to which so many good things are sacrificed.

For two late varieties, Bourjasotté Grise, most delicious in flavour and medium in size, a regular and constant bearer, and Negro Largo, a fine large fruit which is almost black and of very rich flavour, will finish the season. In thus limiting myself to six varieties I shall have left out many favourites, including some of my own, but they are written in many catalogues and books, to which the curious must turn.



NEW GOLD MEDAL ROSE FLAME OF FIRE.

Senate, the basket of Figs in which Cleopatra's asp was concealed, its frequent use as a vehicle for poison, are instances which come to memory. But the object of these notes is an attempt to bring the Fig home to our "business and bosoms"—omitting, of course, the asp.

At a time when many greenhouses lack their usual display, it may be of interest to replace the banished flowers by a useful and healthy fruit. The Fig is particularly happy under the restriction of pot culture, and no more easily managed fruit can be found for a cool house. One great fact requires to be burnt into the mind of the would-be grower, a fact which is happily enshrined in an

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Kitchen Garden.

Early Potatoes.—These will be ready for lifting, and when such work has been carried out and the ground cleared of weeds, it will be in excellent condition for sowing Turnips, Spinach, Radishes, and for planting out Coleworts.

Leeks.—The early plants are now growing freely, and they should be encouraged by frequent applications of liquid manure. The Leek is a gross feeder and well repays for liberal cultivation.

Turnips.—A sowing of Turnips must now be made for a winter supply. Draw shallow drills about 15 inches apart. Green-top Stone, Red Globe and All the Year Round are suitable kinds.

Herbs, such as Thyme, Mint, Sage and Marjoram, may now be cut, and suspended in an airy structure to dry. They will be useful for a winter supply.

Asparagus.—The beds should be kept free from weeds, and a light sprinkling of bone-meal given during showery weather. Support the growths to prevent injury from wind and heavy rains.

The Flower Garden.

Roses.—Where Briars have been planted, the present is a suitable time to begin budding, providing the bark is in a fit condition. This will largely depend upon the weather, and if we experience a dry period it will be advisable to wait for rain. Select plump buds only and insert them close to the stem.

Pinks.—These can be increased from cuttings, which may be inserted in sandy soil placed in a cold frame. In addition to the popular Mrs. Sinkins, there are many beautiful kinds suitable for the rock garden, such as *Dianthus neglectus* and *D. alpinus*. I have also raised a number of these plants from seeds, which were sown directly they were ripe.

Flower Beds.—The plants should now be well established and making rapid progress. To keep them tidy it will be necessary to pick off all dead leaves and blooms weekly, while the grass must be kept short and the edges trimmed. Where carpet bedding is a feature, constant attention will be necessary.

Plants Under Glass.

Chrysanthemums.—Staking and tying will now take up much time where a number of plants are cultivated. Plants that were repotted early may now receive an occasional dose of weak liquid manure. Syringe them regularly whenever the weather is hot, and use some safe insecticide at intervals to prevent an attack of green and black fly.

Coleus thyrsoides.—The early plants are growing freely, and if their tops are removed and made into cuttings, a useful batch of plants will be secured for blooming in small pots.

Fruits Under Glass.

Early Pot Trees.—These may now be repotted in a mixture of good fibrous loam, wood ashes and soot, to which a little bone manure is added. In most instances a larger pot will not be required, so it will be necessary to reduce the ball of soil somewhat, to allow space for the fresh compost. Make it quite firm, and after giving one thorough watering, moisture must be applied sparingly until the roots are re-established.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Flower Garden.

Standard Weeping Roses.—The stocks on which these are budded, especially the rugosa stocks, send up suckers very freely, and these should be kept in check, or the Rose itself will

be weakened. Thin out the young growths, leaving only a sufficient number for furnishing and for providing next season's flowering wood, which should be trained into its proper position as soon as the plants have passed out of flower and had all the old flowering wood removed.

Violets.—Those plants that have been grown on with a view to supplying flowers during the winter months should now have careful attention. During hot and dry weather they are very liable to attacks of red spider, which must be guarded against in advance by frequent syringing and dusting with soot. Stop all side shoots as they appear, so that all the strength of the plant is directed towards building up a strong crown.

Carnations.—A start ought now to be made to layer the border Carnations, especially where autumn planting is practised. The young plants should be well rooted and planted in their permanent quarters as early as possible; late-rooted layers are best kept in cold frames all the winter. It is always advisable to have a quantity of such in reserve, for Carnations have many enemies when exposed all the winter. They must, however, on no account be coddled. A framework with wire-netting at the sides, on which sashes are placed during winter to prevent excessive soakings of snow and rain, is the best method we

they should be potted or boxed and plunged in ashes or leaves until well rooted, when they may be placed in heat in suitable batches.

Salvia splendens.—Plants for winter flowering should now receive their final shift. If these have been grown on steadily from early rooted cuttings, 8-inch or 9-inch pots will be required to carry them through the flowering season. They may be kept in cold frames until the weather becomes too cold for them.

Humea.—Seeds of this plant may be sown now in a moist, warm house. Afterwards remove to a cool structure, prick out singly in small pots, and keep them moving slowly in cool quarters all the winter.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

GOLD MEDAL VEGETABLES

We have pleasure in illustrating on this page the remarkable exhibit of vegetables sent by the Hon. Vicary Gibbs, Aldenham House, Elstree, to the Royal Horticultural Society's meeting on July 18, when it constituted a chief attraction. High-class vegetables from Elstree we have seen for many years, but never before has Mr. Beckett's skill been seen to greater advantage than on the



THE EXCELLENT COLLECTION OF VEGETABLES RECENTLY SHOWN BY MR. E. BECKETT.

have found for keeping the plants healthy through the winter.

The Rock Garden.—Many of the spring-sown seedlings, also cuttings or divisions of early spring-flowering subjects, are now in fine condition for planting out. If to fill spaces where the plants had become overgrown and been discarded, some of the old soil should be removed and a fresh and suitable mixture added. After being planted, a good watering through a fine rose should be given to settle the soil around the plants, and before winter arrives they will have become thoroughly established, with a good promise of a fine display next spring. The propagation of later-flowering subjects should be proceeded with as soon as suitable cuttings can be obtained. These, of course, will be kept in frames (with open sides, as for Carnations) over the winter for planting out as soon as the weather is favourable in spring. Continuous renewing is necessary to keep the rock garden gay and in a tidy condition.

Plants Under Glass.

Roman Hyacinths.—There is likely to be a greater demand for these, owing to restrictions on the import of Dutch bulbs, and intending growers would be well advised to place their orders early. As soon as the bulbs are delivered

occasion under review. The merit of the group was to some extent reflected in the gold medal in addition to the Lindley Medal—the highest awards the Council has it in its power to bestow—granted it, and never were high honours more fully merited. Equally well merited were the eulogies of the best gardeners and the many visitors to the show throughout the day. Comprising 90 varieties and 102 dishes, readers will at once realise the comprehensiveness of the display and how impossible it is for us to give the varieties in detail; indeed, when everything is of the best, it is invidious to particularise, though we cannot refrain from remarking upon the columns of Quite Content and Edwin Beckett Peas, Scarlet-podded Beans and the model character of the Cucumbers. A background of Sutton's Silver Seakale Beet, Celery, Cauliflowers and the like was arranged. Mr. Beckett was certainly in his best form, excellent taste in arrangement being wedded to the highest cultural skill.

OBITUARY

NATHANIEL N. SHERWOOD, V.M.H.

It is with profound regret that we record the death of Mr. N. N. Sherwood, which occurred at his country home, Prested Hall, Kelvedon, Essex, on July 20 in his seventy-first year. As head of the large wholesale seed firm of Messrs. Hurst and Sons, of Houndsditch he was one of the best known and most popular men in the horticultural world. By his demise British horticulture loses one of its greatest workers. For many years we have known Mr. Sherwood as a bluff, hale and hearty man of genial and extremely generous disposition and the essence of kindness. His name will long be remembered for his deep interest in and generous support of the gardening charities. In the early sixties he entered the firm of which he was destined to become the principal. The firm had been founded nineteen years previously by William Hurst and W. G. McMullen, and was therefore at that time in its youthful stage. Six years later he was taken into partnership, a happy social feature of his association with the firm being his marriage with the youngest daughter of William Hurst. In 1890 he became sole principal of the firm. In consequence of a serious illness in 1902, he relinquished the entire management of the business, which has since been ably carried on by his two sons. The volume of *THE GARDEN* for 1912 was dedicated to him, and a very pleasing feature of his business career that year was the celebration at his charming country home, Prested Hall, Kelvedon, Essex, of his fifty years' connection with his firm. When in 1897 the Royal Horticultural Society decided to institute a Victoria Medal of Honour in Horticulture, Mr. Sherwood was deservedly one of the original recipients. He was an active member of the Board of Directors at the great International Exhibition at Chelsea in 1912, and he has twice been Master of the Worshipful Company of Gardeners, one of the oldest of the City of London Guilds. Mr. Sherwood was a prominent Freemason, and was one of the founders of the Hortus Lodge. He was fond of art treasures and had at his home in Streatham a collection of paintings of great beauty and value. Although he gave the closest attention to his business, he was not unmindful of others, for he was ever ready to lend a helping hand for the alleviating of the distress of those who had fallen on harsh times.

EDITORIAL NOTICES

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

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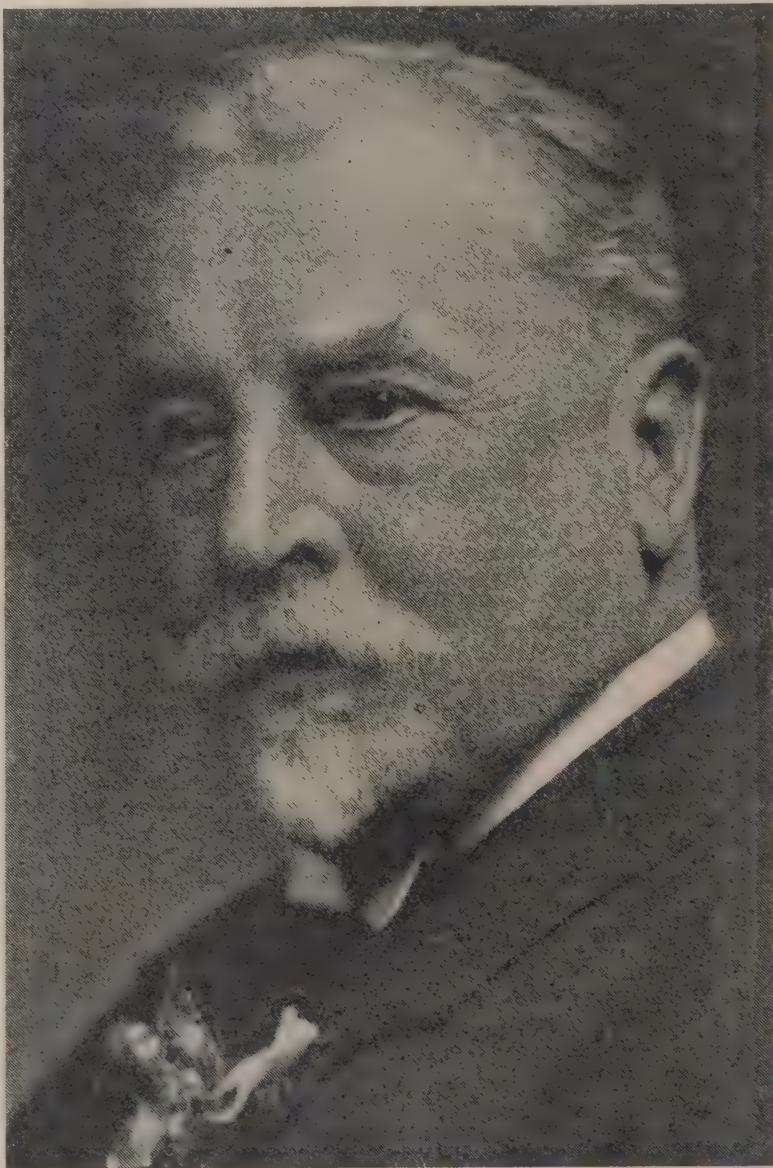
Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS
TO CORRESPONDENTS

FLOWER GARDEN.

PLANT FOR GRAVE (*North Cotswood*).—We consider that in the circumstances *Antennaria tomentosa* would be the most suitable plant. It is silvery, not grey; hardy, a perfect carpeter of the soil, and would be in sharp contrast with the fine grass. You would require, probably, about two dozen plants if immediate effect is desired. The plant is cheap, and any of the hardy plant dealers advertising in *THE GARDEN* could supply it.

DAMAGED PLANTS (*Una*).—The *Viola* is attacked by the rust fungus, *Puccinia violæ*, which has doubtless spread from *Violets* growing wild or cultivated in the neighbourhood. Attacked plants are best burned, and the remainder sprayed so as to get a clean start next autumn with healthy cuttings. The *Antirrhinum* is attacked by the spotted millepede, *Julus pulchellus*.



THE LATE NATHANIEL N. SHERWOOD, V.M.H.

Its presence suggests the need of lime in the soil. Soil limed at intervals rarely harbours millepedes. The use of crude naphthaline, which can be obtained from most gasworks, lightly forked among the plants, would probably drive away the pest. You do not send the roots of the Peas, but, judging from the appearance of the plants, we suspect the presence of the root-rot fungus, *Thielavia basicola*, on the roots. Ill-drained soil and general sourness of the soil conduce to the attack of this fungus, and we suggest attention to these points in cultivating the Peas another season.

FRUIT GARDEN.

TOMATOES DISEASED (*Liverpool*).—The Tomatoes are attacked by one of the bacterial rots, and the treatment called for is the destruction of all the diseased fruits by fire and the dressing of the soil with a mixture of wood-ashes and superphosphate. See also that insects, which are likely to carry the bacteria about from plant to plant, are kept down by fumigating.

A BAD ATTACK OF AMERICAN GOOSEBERRY MILDEW (*Sojourner*).—The Gooseberries are, we regret to say, badly attacked by American Gooseberry mildew. It would be well to pick and burn them as soon as possible, then to spray the bushes with Burgundy mixture according to the recipe given in *THE GARDEN* a week or

two ago. In addition to this, in the early part of September cut off the tips of the branches where the mildew may be lurking and burn them all, starting the spraying again next May. Notice of the outbreak must be given to the Board of Agriculture.

DISEASED BERRIES OF MUSCAT GRAPES (*J. S.*).—The Grapes are suffering from a disease named scalding. It is given this name because the berries appear as if they were scalded or parboiled. The disease invariably attacks the berries at the time of stoning, the cause of the attack being too low a temperature and the absence of a free circulation of warm air. To prevent an attack, see to it that a little heat is provided by having the hot-water pipes just warm night and day while this process is going on. Admit air freely night and day when the weather is favourable. The air will then be warm and buoyant and will circulate rapidly.

RASPBERRIES NOT FRUITING (*E. Trollope*).—The branches sent are perfectly healthy, and we can see no reason why the flowers should not set and the fruit grown in the usual way. In the absence of some local cause, of which we know nothing, such as the closeness of large trees and the robbing of the soil by their roots, or the overshadowing of the Raspberries by their branches, we should be inclined to think that the variety is at fault. If you decide to replant, the best red variety is *Superlative*. The Raspberry enjoys a cool, deep, rich soil in which to grow.

GUMMING OF PEACH FRUIT (*W. M. and Sons*).—On cutting your sample Peach it was found that the stone was wasting away and exuding a sort of gum which found its way to the surface. That, of course, was the immediate cause of the fruit dropping. The cause which gave rise to the decay of the stone is involved in considerable mystery. No one, so far as we are aware, can give a reliable and specific reason or cause of its origin. We have found in our experience that large and later varieties are more subject to the disease than are early and mid-season ones. Some contend that the disease is due to imperfect fertilisation of the blossoms. This may have something to do with it; therefore let the flowers be artificially and carefully fertilised next year with the pollen of another variety. Others will tell you that the cause is a lack of sufficient lime in the soil. It is quite safe to make these or similar suggestions; they are more or less guesses and cannot be verified or contradicted. For our part we believe that the presence of the disease points to the absence of more than one essential constituent in the soil in sufficient quantity for the proper formation of the stone, caused by absorption of the trees over a series of years. Acting on this belief we have invariably lifted and replanted such trees in new and proper Peach soil as soon after the fall of the leaf as possible, and suffered no recurrence afterwards.

FIG TREES DROPPING THEIR FRUIT (*Miss W. G. B.*).—This is an old complaint and general at this time of year. It may, therefore, be useful to other readers of *THE GARDEN*, besides our correspondent, if an endeavour is made to throw some light on the cause of the trouble, and to suggest means of obviating it. The direct cause of the fruit dropping is its sterile condition, no seeds having been formed, or formed in insufficient numbers, to secure its fertility. This bare statement does not carry us very far, as it fails to explain the cause or causes of the failure of the crop. It is important that the grower should remember that the crop of Figs to be borne next year must, as it were, first be manufactured in the shoots of the present year's growth. Bearing this in mind, the importance of these shoots and the preparing of them to produce such crops is obvious. How is this to be done? In the first place by compelling such trees to produce shoots of such strength only as are calculated to bear substantial crops. In the second place by subjecting such shoots during summer and autumn to the maximum amount of sunshine and warm air obtainable in order to bring about firm growth, ripeness of the wood of the shoots, and of their fruit-buds. It will be useful to bear in mind that the fruit of the current year's growth in the Fig, as in most other fruits, is chiefly the result conserved up sunshine of the year before. What then, it may be asked, is the process a barren Fig tree has to be subjected to in order to bring it to a state of fertility? The Fig tree is naturally of strong growth, and this is especially true of seedling trees (as is our correspondent's), and shoots of this character are difficult, if not impossible, of being ripened and converted to fertility in the course of our short and sunless summers. The process is simply to root prune in autumn as soon as the leaves have fallen, and so bring about a more moderate growth of branches; to confine the roots to a comparatively small border of not over-rich soil; also to take care to thin out weak shoots in spring, so that the shoots left will have ample room for full exposure to all sunshine and warm air available, so preparing them to bring sure and good crops the following year. Fig trees belonging to amateurs are mostly too congested with branches in summer. Should this be the case with our correspondent's tree, let no time be lost in cutting out the weakest and the very strongest, in order to give the shoots of moderate strength left a chance of becoming well ripened in the course of the summer.

THE GARDEN.

No. 2333.—Vol. LXXX.

AUGUST 5, 1916.

NOTES OF THE WEEK

THE timely advice given by the Board of Agriculture and Fisheries, impressing Potato growers with the importance of spraying their crops with a suitable fungicide (Bordeaux or Burgundy mixture), deserves the attention of all who possess a garden. If not already done, the spraying should be carried out as soon as possible, since the recent rains are likely to lead to an outbreak of Potato disease, which may seriously injure the crop; and should the weather continue to prove unseasonable, the spraying should be renewed in two weeks' time, or the loss may be considerable.

Trial of Winter-Fruiting Tomatoes at Wisley.

The Royal Horticultural Society will carry out a trial of winter-fruiting Tomatoes at Wisley during the ensuing season. Seeds for trial (one packet of each variety) should be sent so as to reach the Director, Royal Horticultural Society's Gardens, Wisley, Ripley, Surrey, from whom the necessary entry forms (one for each variety) may be obtained, on or before Tuesday, August 15.

Propagating Pentstemons.

Some of our finest varieties of Pentstemons are very shy in producing cuttings, so that it is recommended to commence propagating early. The shoots that are being thus tipped for early cuttings will branch out and provide a second and third batch. Place four or more cuttings round the sides of 4-inch pots and stand them in a close cold frame. Shade from the sun, when rooting will soon take place.

A Curious Meconopsis.

At a recent meeting of the Scientific Committee of the Royal Horticultural Society, Mr. H. J. Elwes showed a Meconopsis from the garden of Mr. Dimsdale of Ravenshill, Eastleach, Lechlade. It was thought to be a seedling which Mr. Elwes had given him from Meconopsis latifolia, but had curiously shaped leaves. Sir David Prain, to whom it was referred, said it was a form which he had not seen before, but save for the absence of bracts on the pedicels it agrees in essentials with Mr. Hay's M. decora, with blue flowers. It has the peculiar hairs of M. decora, which look simple at first sight, but which have very minute protuberances as seen under a low power. Sir D. Prain considers it probable that M. decora is a hybrid between

M. latifolia and M. Wallichii. Mr. Elwes wrote later that he had seen a specimen in Mr. Grove's garden which had thrown out side shoots very like Mr. Dimsdale's plant, and the pistil resembling that of latifolia.

A Pretty Campanula for Wall or Rock Garden.

The accompanying illustration depicts a fine clump of Campanula garganica W. H. Paine growing on a wall in Mr. John E. Williams' garden at Hillside, Llandaff. It is an extremely pretty variety, with a conspicuous light eye to its deep blue flowers. In habit and freedom of flowering it is typical garganica while its two colours, which are nearly equally divided, make it a very distinct and effective variety. Unfortunately,

Considering the enormous size of the flowers, this interesting question should be settled without much discussion. From the illustration of L. giganteum at Wisley, issue July 29, page 370, it appears as though the top and bottom flowers opened at the same time, with the oldest flowers in the middle.

"Exceptions Prove the Rule."—It must be a very long time since British gardens had to do without a supply of bulbs from Holland in the autumn. We have no idea when the first Dutch catalogue printed in English was issued, but we have seen a list of Hyacinths, Tulips, Ranunculuses and Anemones which was issued in 1770 by the great Haarlem firm of Nicolas van Kampen

and Sons. Novelties then, as now, were noted to catch the cautious and the voracious buyer. "Quite new," "very scarce," often appear appended to the various descriptions. "Lak" is explained as signifying "a peculiar kind of old Tulips, almost entirely purple, border'd with white." It is rather surprising to find no fewer than twenty-three pages of Ranunculuses, compared with thirty-five given to Hyacinths. Of these latter, there are nine pages of single varieties and twenty-six of double.

Sir Arthur Church's Collection of Botanical Drawings.

The water-colour drawings of plants by various botanical artists in the collection of the late Sir Arthur Church have recently been presented by Lady Church to the Royal Botanic Gardens, Kew. This interesting and valuable collection, which includes examples of the work of the more important early flower painters from

the time of Simon Varelst, has been arranged at the expense of Lady Church on the walls of the small room, once Miss North's studio, adjoining her gallery, and is now open to public inspection. The drawing of Sedum Telephium bearing the name of P. J. Redouté—the Raphael of flowers—is somewhat doubtfully attributed to him. The *Kew Bulletin*, No. 6, 1916, contains some interesting particulars of the twenty-nine artists and a list of the subjects of their pictures.

* * * Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.



CAMPANULA W. H. PAINE ON A WALL AT LLANDAFF.

the light eye was not shown in the photograph from which our illustration was prepared. It is rapidly becoming quite a favourite, and we have seen it in many good rock and wall gardens this summer.

The Opening of the Flowers of Lilium giganteum.

It is generally supposed that the flowers of Lilium giganteum open from the bottom of the spike upwards. This has, in fact, been given as one of its specific characters. But Mr. Elwes, who has raised the question, states that at Wisley he had found that the bottom flower did not first open as had been reported, neither did it in certain other plants of this species.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Rose Paula Clegg (H.P.).—There are but few exhibitors acquainted with this splendid new Rose. I have had it very fine this season. It is somewhat after the style of A. K. Williams, but with a growth almost as vigorous as J. B. Clark. The flowers come of splendid form and rich bright red in colour. Alas! how seldom we see these grand old Hybrid Perpetuals nowadays; but it will be a mistake if we allow them to be lost. Just lately Charles Lefebvre, Louis van Houtte, Commandant Felix Faure, &c., have been superb. Paula Clegg was introduced by Kiese and Co. in 1912.—DANECROFT.

The Oldest Surviving Florists' Flower.—The question raised by your correspondent Mr. T. Hay on page 357, issue July 22, as to what is the oldest surviving variety of any florists' flower, is an interesting, although a difficult one to answer. It could only be definitely answered by an appeal to the cultivators of each different kind of florists' flower to state the oldest one they know in the various kinds, and then tracing the origin of such flowers back to the date of their being put into commerce. Without reference and speaking solely from memory, I should think Solomon Page's Champion in Auriculas would be hard to beat if still in cultivation. It is not so many years ago since it was referred to in the columns of a contemporary as being still grown by Auricula fanciers. Then in Chrysanthemums it occurs to me that Salter's King of Crimson may still be grown in country gardens somewhere in the United Kingdom. After a long period of neglect it was rediscovered and made a fuss of for a time. In Dahlias it was the same with *Picta formosissima*, which Messrs. Cannell some few years ago came across and reintroduced to the public notice. These are the only three aspirants I can think of for the honour, supposing them to be still in cultivation, which it is not easy to ascertain. I wonder whether some of the old English florists' Tulips are still prized by old-time cultivators. Then the Picotee suggests itself. But on the spur of the moment, I should say if Page's Champion is still in existence among present-day Auricula fanciers, it would be an easy first.—C. HARMAN PAYNE.

The Pure White Orchis maculata.—I was so much interested in the illustration and note in your issue of July 22 of the pure white Orchis maculata in the gardens at Friar Park, Henley-on-Thames, as I have been collecting different varieties of this plant for some years. So far I have only found one specimen of the pure white variety, which has increased nicely since planted in the rock garden, but it has leaves with unusually heavy dark blotches on them. One other plant, found wild, has the flowers pure white when fully expanded, but the unopened buds are flushed with mauve. This one has plain dark green leaves. From its tall stature and early flowering I suspect it to be one of the *O. latifolia* × *maculata* hybrids. I know that some of these have been sent out by nurserymen under the names of Kilmarnock, Miss Hope and Mudeford Orchis. I do not believe they are very uncommon where the two species grow together; possibly some of your readers interested in British Orchids could tell us. It has always surprised me why such showy and hardy plants have been so much

neglected in gardens.—H. M. B., Duns, Berwickshire. [A few weeks ago we saw a pure white form of Orchis maculata in a Chelmsford garden, and it is said to be a fairly common native in that part of Essex. Unlike the plants at Friar Park, it had dark spots on the leaves. The Kilmarnock variety of Orchis maculata is a scarce but very beautiful border or bog plant which is to be found in very few gardens outside Scotland. It was, we understand, found a good many years ago on a moor in the Kilmarnock district, and has been cultivated in gardens from that time. It has densely flowered spikes of purple blooms and



ORCHIS LATIFOLIA × O. MACULATA IN THE ROCK GARDEN AT KEW.

handsome spotted leaves. Whether it is a natural hybrid between *O. latifolia* and *O. maculata* we cannot say, although we should not be surprised to learn that it is so, for it is well known that these two species cross readily in cultivation. For some years a hybrid between these two species has flowered remarkably well in the rock garden at Kew. When in flower the hybrid presents a very striking appearance, for it is much more vigorous than either of its parents. Fortunately, nurserymen have very good stocks of most British Orchids, so that there is no occasion for them to be hunted down in their native habitats.—ED.]

Primula heleodoxa (?).—There has been good deal of quiet banter and chaff about the correct way of spelling what, as a parson, I may by analogy call the Christian name of this new Chinese foundling. The exhibitor of this novelty at the Chelsea Show thought he had got a well known, botanically-inclined gardener who, like the weasel, is seldom caught asleep, on this occasion on toast. The label read "helodoxa," for said the exhibitor with a sort of inward chuckle as much as to say, "I have got him at last," the word means "glory of the marsh" and "hēlos" is the Greek for marsh; whereas, if it were "heliodoxa," as the learned one insists it should be, would mean "glory of the sun." The glorious plant with its tiers of Jersey butter coloured flowers seems likely to suffer from a plethora of names. It has been dubbed "heladoxa" in THE GARDEN on page 256, issue May 27; while the *Gardener's Chronicle*—like the old lady with the sweet station on the way to the 'Varsity boat, who always decorated it with both dark and light blue ribbons in quite a Vicar of Bray spirit—in its issue for May 27, on page 286, has it "heliodoxa" and on page 291, "helodoxa." *Gardening Illustrated* on page 342 has it "helodoxa," and the same name occurs in the *Gardeners' Magazine* on page 262. We get it in the *Revue Horticole* for July on page 113, under "Les plantes nouvelles Londres" as "heliodoxa." Finally, last week we had "helodoxa" writ large on page 367 with the mystical letters (Balf. fil.) appended and the imprimatur of its famous discoverer Forrest. All which "progeny of learning" decidedly muddling. I do not profess to be at all "high l'arned," as my old garden used to say, but I possess a Liddell and Scott and on the authority of that time-honoured friend I am afraid it is a case of the biter being bit, for although "hēlos" is the nominative case, "hēleos" is the genitive. I seem to hear my old master saying, "Go up top; of course it's hēleodoxa." There is a saying, I think, about fools stepping in where angels fear to tread. Perhaps, Mr. Editor, some of the latter people will now tell us what they think.—JOSEPH JACOBS.

"The Twelve Best Rambler Roses."—"A. B.'s" suggestion contained in his article on the above in the issue of July 22, page 35, is an excellent one, and I have much pleasure in adopting it and sending you a list. In drawing up the list I have confined myself to such Roses as will fall within "A. B.'s" limitations, or rather qualifications; but I might point out to "A. B." that the first essential of a Rambler Rose is surely that it should ramble. Now no fewer than six of his dozen do not ramble, but only climb, and I have, therefore, in compiling my list added that as a qualification. The six that are thus ruled out are American Pillar, Tausendschön, Blush Rambler, Climbing Aimée Vibert, Golden Finch and Paul's Carmine Pillar. I think American Pillar is doubtful. To my mind there is sufficient Wichuraiana blood in its composition to carry it over the border line; but he himself calls it a Multiflora scandens, so I have excluded it rather than run the risk of being "hoist with my own petard." In order of merit, or as near as one can get it, my list is as follows: Miss Helyer, François Juranville, Alberic Barbier, Minnehaha, Lady Godiva, Excelsa, Jersey Beauty, Garden Shower of Gold, Leontine Gervais, White Dorothy and Evangeline. If the "Rambler" qualification is not insisted on, I should take out the last three and substitute American Pillar, Tausendschön

and Goldfinch, and I should place them fourth, fifth and ninth respectively. The first two Roses on my list are not mentioned in "A. B.'s" article, and they are *facile princeps*.—H. E. MOLYNEUX.

— With so much variety in colour, formation of flower and habit of growth to choose from in Rambler Roses, there always will be a difference of opinion as to which are the best varieties. Locality and methods of cultivation have so much to do with the success or otherwise of certain sorts that no wonder there are such widely expressed opinions. The list given on page 359, issue July 22, by "A. B." is certainly a good one with the exception of the last three sorts. Climbing Aimée Vibert, away from a wall, does not flower freely enough. I should substitute Sander's White, a Wichuraiana of recent introduction possessing all the attributes of a good Rambler. Especially clear is the purity of colour, and that is important in what is said to be a white Rose. So many are dull and too often tinged with pink. Goldfinch is apt to become "leggy" near the base, and does not flower in all situations freely enough. Claire Jacquier, I think, is better. It produces huge clusters of flower quite early in the Rose season. Carmine Pillar is the earliest Rose to open its blooms, which are freely produced; but in time the plant grows less vigorous, and liable to become thin and sparse of growth, especially near the base. If a single-flowered sort is required to give variety, I should substitute Evangeline, a Wichuraiana introduced by Walsh in 1907. The blooms are of full size, in clusters, very freely produced, with white centre and carmine-tinted petals. In growth the plant is all that could be desired.—E. M.

Wasps and Grapes.—In "Notes of the Week," issue July 22, there is a timely warning given to cultivators to prepare against an invasion of wasps. Personally, I never saw so many queen wasps as I did last spring, and so in all probability there will be a plague of wasps this season. Last

year an amateur cultivator came to me and asked what he ought to do, as he had had robbers in his vinery. I misunderstood him and, laughingly, advised him to lock the door. "Oh, no," he replied, "that would be no good; the robbers are wasps." I saturated flannel cloths in paraffin and suspended them, 10 feet apart, from the wires, and although wasps came into the vinery before, they did not enter it afterwards, but passed over. Soon after doing this I learned that petrol was even more efficacious. Perhaps other growers have tried it.—G. G.

White Goat's Rue (*Galega officinalis albiflora*). This charming old cottage garden flower seems rarely seen or mentioned. I have not come across it a dozen times in as many years, though the lavender blue species is fairly frequent. For a long time (after losing my own in moving) I could not get it again, till a few years ago I received a packet of seed, and from it raised a particularly good specimen. It is a capital "cut and come again" plant for the mixed border of hardy perennials, where it makes a mass of pure white blossom. It is also dainty and attractive for table decoration, and the more the topmost sprays are picked, the more, and longer, the plant continues to flower in the border. I have it just now in a Venetian glass goblet of Chartreuse green with a crystal and gold flecked stem, which just suits its white spikes tipped with green buds supported on the ever-useful and unobtrusive sprays of the blossom of *Thalictrum adiantifolium* (which are as useful as its leaves) and with the Goat's Rue foliage. For those who do not know it, I may describe Goat's Rue as like a miniature Lupine with pinnate, in place of palmate, foliage, which is a pale bright green in early spring, when it is both pleasing in the border and combines well with cut flowers at that season.—ANNE AMATEUR.

Standard Tree Lupines.—I do not know if it is common knowledge among our gardening friends that Tree Lupines can be grown as standards. As an experiment I have grown one this year, and I send a photograph showing the result. I cannot recall having seen one before. Of course, by growing them as standards it is an advantage in the borders, because a Tree Lupine, when grown in its natural way, covers a good portion of the border, and it means an unsightly patch all the summer. Grown as a standard about 5 feet high, the border can be filled, and when the plant has finished flowering it can be pulled up, provided one has a stock for another year. The white Lupine is excellent with such subjects as Oriental Poppies or Geum Mrs. Bradshaw as a groundwork.—H. FARR.

Ceanothus dentatus on a South Wall.—I am forwarding to you the accompanying photograph of a *Ceanothus dentatus* which is growing in my garden, because I think it may interest some of your readers. It is the largest I have seen, being about 15 feet high and 30 feet across, and when in full flower is quite a startling sight. It is against a south wall



CEANOTHUS DENTATUS GROWING OVER A STABLE WALL AT WESTBROOK, GODALMING.

and was planted in 1900 or 1901; I am not sure which. I consider it a valuable shrub, for it can easily be struck from cuttings, is a pretty object when not in flower, and not an untidy object when flowering is over. If desired, it can be trained against a wall, and it does not object to such treatment. It flowers about the beginning of June and lasts in bloom for at least three weeks.—THACKERAY TURNER.

Spinach Beet.—There seems to be a certain amount of confusion with regard to this most useful vegetable, which is also known as Perpetual Spinach. The condemnatory note in THE GARDEN for July 22, page 355, from "T. A. W." by no means tends to put matters straight. The vegetable referred to by your correspondent is not Spinach Beet at all, but what is known as Seakale Beet. With regard to the edible qualities of this last, I entirely agree with "T. A. W.," though even then opinions may differ, as tastes are so various. The Spinach Beet, however, I look upon as one of the most useful of all green vegetables, especially for a small garden, as it gives a continuous picking from a limited space. From a few rows sown in April at 18 inches apart we have been picking for some time, and if the plants are not allowed to suffer from want of water and an occasional stimulant is given, they will continue to keep up a succession of leaves till autumn is well advanced. Even then an occasional picking may be obtained in the winter. In the case of the plants that have rendered such good service, I go over them in the spring and cut off all old and exhausted leaves. Then a dressing of guano is given and well hoed in. The result of this is a delightful crop of young leaves in April and May, when greenstuff in the average garden is none too plentiful.—H. P.

FORTHCOMING EVENTS

August 7.—Evesham Horticultural Society's Show.

August 8.—Walsall Horticultural Society's Show (two days).

August 9.—Sheffield Chrysanthemum Society's Show and Lecture.



A STANDARD TREE LUPINE IN THE HARDY FLOWER BORDER.

THE ROSES OF JULY

"In pomp supreme the countless Roses passed
Battalion on battalion thronging fast,
Each had a different banner, flaming bright,
Damask, or striped, or crimson, pink or white."

—"A Legend of Provence."

THE "Pageant of Summer" is heralded in the Rose world by the tender greenery and fleeting blooms of the Scotch and other May-flowering Roses. In June it shows itself in the blooming of the

blush and white Roses of the hedgerows and the sweetening of our gardens with Roses innumerable, and culminates in July when our Rose gardens become a feast of colour and fragrance. July, at any rate for those who live north of London, is the great month of the Hybrid Tea and Hybrid Perpetual, and it is in these two groups of Roses that we find the most varied and the most "voluptuous" (to use Keats' expression for the garden Roses) forms.

As one walks round the garden now in mid-July, in spite of the wet and the sad lack of sunshine, it is "Roses, Roses all the way." Beds and borders are literally "hanging out their blossoms flaming bright," and we may find among the Hybrid Teas and Hybrid Perpetuals almost every shade of white, blush, pink, rose, salmon, yellow, terra-cotta and crimson, many of these shades being subtly blended in the same Rose. The forms, too, of these Hybrid Teas are almost as varied as the colours. There are the single Hybrid Teas, reaching their greatest beauty in the charming outlines and tints of the ever-popular Irish Elegance; the semi-singles, as they are somewhat crudely called, such as the bright pink Mrs. Rosalie Wrinch and the almost scarlet Red Letter Day. There are the pretty, somewhat cup-shaped forms still to be found in Roses of the type of Theresa and Jacques Vincent. More typical of the modern Hybrid Teas are the pointed forms, which, if surrounded with a fringe of guard petals, as in the lovely rose pink Mrs. E. G. Hill and the exquisite light crimson Richmond, is perhaps the most beautiful of all forms. Then, again, those with reflexed petals, of which La France and Mme. Abel Châtenay are good examples, have a beauty all their own. Others—Ophelia, for instance—are most lovely in their upright, pointed shape, which seems the best adapted to showing and preserving so long as may be the exquisite shell-like tinting of the inner petals.

The pen of a Ruskin or the brush of an Alma Tadema is needed to enable one to describe or

represent in any adequate way the thousand beauties of form and colouring which may be found among the Roses of July. Even in the extraordinarily wet month of this year many varieties are blooming in perfection, and this is specially the case with the red Roses, which, I think, are even more beautiful than usual.

The hot sun scorches and burns the Hybrid Perpetuals, and takes the brilliance out of the crimson Hybrid Teas, causing them to open too quickly. But all this month



ROSE LITTLE DORRIT.

the red Roses have been the great joy of the garden. Richmond, sometimes too thin and too light, has given Roses of perfect form and glowing light crimson shade. General Macarthur and Mrs. Edward Powell have grown into fine plants with magnificent dark foliage and almost flauntingly gay scarlet red blooms. The more dusky Liberty and Marquise de Salisbury, and the soft crimson Hugh Dickson, with its unsurpassed fragrance, are also flowering well. Edward Mawley, a variety, I think, which specially dislikes strong sunshine, has been very fine. The great dark crimson petals of this Rose, beautifully flushed with scarlet on the inside, are exceedingly

effective in the garden. Among newer Hybrid Teas, Dora von Tets is a pointed dark crimson, and H. E. Richard is the most velvety of any Hybrid Tea I have seen. It is also possessed of an exquisite scent. In cold weather its petals curl up in a curious manner. Turner's Crimson Damask, a fine single Rose, has been more beautiful than usual in July, and Red Letter Day has all the brilliancy its name denotes.

The late Wichuraianas are usually in full bloom by the middle of July, but this year I have not yet (July 22) seen a single cluster of Dora Perkins or Lady Gay. Hiawatha and Excelsior are beginning to show crimson in their buds, and the lighter crimson Coronation is fully open and is very effective in the garden at a distance. The handsome crimson rose-coloured American Pillar is rapidly coming into flower, and the very graceful pale pink Débutante is just at its best, clothing its pillar in a most pleasing manner. The Multiflora roses, such as Crimson Rambler and the mauve-pink Hélène, are also in full bloom in July.

Many of the delicate Tea Roses have been very much dashed by the heavy rains, but a few warm days would wonders among them. A bed of Corallina is looking very cheerful, and, fortunately, has not been attacked by the black spot, which has rather spoilt the beauty of its neighbours Little Dorrit and Mme. Antoine Mari. In wet weather is, I suppose, partly responsible for the prevalence of such fungoid diseases as rust, black spot and mildew. The Polyantha Pompons which have been hard pruned come into full bloom this month, and so do the beds of Mrs. W. H. Cutbush, Orleans Rose and Jessie are very bright.

In the Rose shrubberies the blooms are not so numerous as they were in May and June, but Rosa lucida and R. lucida have just begun to flower, and the little R. nitida is scenting the air round the corner devoted to the charming single variety; these are American Roses. Rosa and its garden varieties Maiden Blush and Celestial are in bloom during July; so are the bright pink Andersonii, the pale

macrantha and many of the Moss Roses. The pale pink Spong, a variety of centifolia with blooms like small button mushrooms, is flowering freely on the rock garden; the pink gallica pumilla is not quite over, and the pretty dwarf rugosa Schneezwerg is just coming into bloom.

When July passes away, the true summer, with its long days, its fields of unmown hay, its wealth of Roses, passes with it; and though in August and September "on new Rose buds the sun shall smile," they will be the Roses of early autumn: our summer Roses will bloom no more.

WHITE LADY

CLARY (SALVIA SCLAREA)

BY GERTRUDE JEKYLL.

THIS very old plant of officinal gardens deserves better recognition of its merit in the flower border. Carefully grouped it is one of the most effective of flowers for a good three weeks in July. The flower-stem stands $4\frac{1}{2}$ feet high and is widely branched. The blooms, of typical *Salvia* form, are of a pale bluish colour, but they are accompanied by wide reddish lilac or mauve bracts, thus forming clouds of harmonious colouring, broken enough to be the more effective and interesting. Seed should be saved from the deepest-coloured plants, as it is apt to degenerate to a paler tint, although it seeds itself freely, for if the ground where last year's plants stood is not too much disturbed, strong seedlings will appear the next year in early summer which will be the blooming plants for the year after. It is a short-lived perennial, but is best treated as a biennial. There is a fine strain in the hands of a private owner, who, I believe, is willing to supply it.

Whether the English name Clary is a corruption of the specific name *Sclarea*, or whether it is from Clear-eye, appears to be an open question; but for centuries and until quite recent times the seeds have been used as thus described by Parkinson in 1629: "The seed is used of some to be put into the corner of the eye, if any mote or other thing haue happened into it." He also advises the use of the leaves for the table in these words: "The leaues taken dry, and dipped into a batter made of the yolkes of egges, flower, and a little milke, and then fryed with butter vntil they be crispe, serue for a dish of meate accepted with manie, vnpleasant to none."

A SAVOY UPLAND IN JULY

BY EDWARD H. WOODALL.

Orchis conopsea.—This season of alternate rains and sweltering days of steamy sunshine has at least suited some plants in this fair land of Chestnut and Vine, and of alpine meadows reaching up to the snows above the cattle pastures. The other day, after several attempts to reach these regions where flowers abound, we found a promising road, and, after a moderate climb, emerged on a mountain plateau so richly coloured by flowers that it fairly took us by surprise. It is the time of the Chestnut bloom, when the Spanish Chestnuts are a creamy mass of feathery flower. On the rocky knolls the spires of *Spiræa Aruncus* are still abundant under their shade, and the Honeysuckles hang in fragrant garlands over the purple *Campanulas* so common everywhere and yet so beautiful that they must not be passed without mention. On turning a corner, a swampy meadow one grand mass of brilliant rose purple colour greeted our eyes, and for a moment I thought that the Loosestrife or Willow Herb must be the flower that provided such a feast of colour. But no; it was *Orchis conopsea* in thousands, scenting the air with its musky perfume, and growing to a size and stature far beyond anything I have ever seen. Among the Rushes and Cotton Grasses were groups of *Epipactis palustris*, equally gigantic in growth, but of a dead white colour without the

usual purplish stainings, and I counted over thirty flowers and buds on one stem, so that it made an imposing show in contrast to the brilliantly coloured *Orchis*. *Pinguiculas* were still to be found on the northern slopes, and on the more sunny the lovely Grass of Parnassus was already well in flower. This, however, was distinctly less robust and beautiful than in English wilds, smaller in flower and altogether less vigorous. The patches of white buds and open flowers were none the less effective. Further on were groups of the best forms of yellow Foxglove I have seen, their clear yellow bells showing to advantage in the green shade of the trees among the *Campanulas* whose name and variety is legion, and yet none was of the familiar *macrantha* or yet quite of the more "bunchy" *lactiflora* type. *Genista tinctoria* covered all the dry and sunny banks with its brilliant carpet of yellow, and the fragrant Meadowsweet filled the watercourses where

GRAPE MADRESFIELD COURT

THIS handsome black Grape is deservedly popular during the summer months, and it is worth all the care that can be bestowed upon it to bring it to perfection. The bunches are long and tapering and the berries oval, while the flesh is juicy, rich and distinctly Muscat flavoured. It cannot be considered a difficult Grape to grow, yet many cultivators find a difficulty in colouring the berries well, and in some cases they are inclined to split. A well-made border, properly drained, is the first essential to success; given that, it will not be difficult to grow good Grapes if the essential points of management are properly carried out.

Watering plays an important part in the development of the bunches; never allow the border to



SALVIA SCLAREA OR CLARY AT MUNSTEAD WOOD.

marsh Ferns abounded. But everywhere for many acres was this gorgeous wealth of *Orchis conopsea*, sometimes rising to more than 2 feet in height, and, while varying a little in its tone of colour, was always the brightest and most beautiful thing imaginable. The scent will long remain as a memory, and the bold sheaves of blossom we gathered were the admiration of our friends.

Certainly in an English bog garden a group of this brilliant form would make a welcome succession to the Madeira *Orchis foliosa*, and in combination with the many *Astilbes* now grown would make a delightful July effect. The form I am familiar with in Yorkshire is more lilac or lavender in tone, and, though a delightful plant, is not nearly so effective as this Southern form, which I have never seen in any English bog garden. It may be that the season has contributed to its size and stature, but under less favourable conditions it must still be a beautiful flower well worth a place in any bog garden.

become dry, and during the growing season always use tepid water. When the Vines are watered just as the berries commence to colour, the temperature of the water should be about 90° if that dense black colour and intense bloom that is so much admired is wanted. Give sufficient water to moisten the border thoroughly to the drainage. If the soil gets dry, and then water is given, some berries are sure to split. The secret is to keep the roots uniformly moist, and at the same time keep a little warmth in the pipes and some air on the house by day and night, a little being left on the front ventilators continually. If this treatment is given, especially during dull, damp weather, there will be little fear of unsatisfactory results.

This Grape is better grown entirely in an inside border, as it is then under control. Avoid overcropping and if the weather is very hot when the Grapes are colouring, it is a good plan to shade the house slightly during bright sunshine.

J. GARDNER.

NOTES FROM A HAMPSHIRE GARDEN: SOME OF THE NEWER ROSES

BY HERBERT E. MOLYNEUX.

Lady Dunleath is a Hybrid Tea of the decorative class, but with many Tea characteristics, whose long pointed buds, half opened, form an ideal buttonhole for the Rose lover. That is Lady Dunleath's strong point: an ideal buttonhole; and so we have had the three types of the decorative Rose—garden, home and self-decoration—exemplified by the three Roses Hilda Richardson, Chrissie McKellar and Lady Dunleath, all three useful in all three ways, but each at its best in one. The neatness of Lady Dunleath appeals strongly to those who prefer form to colour; its shape, although on the small side, is perfect, and when better known Lady Dunleath is certain to become popular among those who like a neat buttonhole. Scented, one might almost say strongly fragrant. Its colour is white with yellow centre. Free flowering, a good grower, and altogether a delightful Rose.

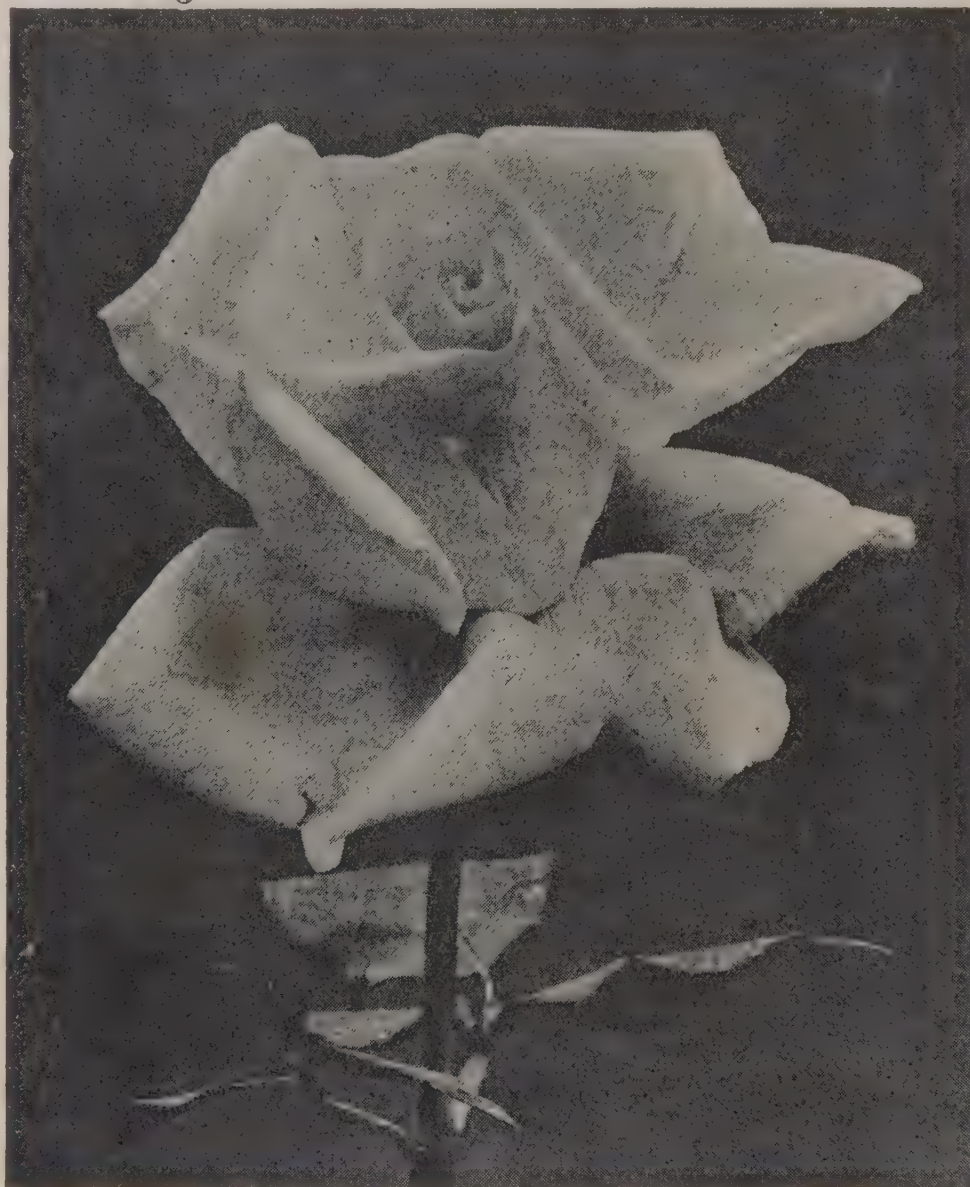
Mrs. Forde.—Of the 1913 Roses sent out by Messrs. Alex. Dickson and Sons, this is the only one of the half-dozen that has any pretensions to exhibition form. Our standard for exhibition Hybrid Teas is now so high that it is not easy for a new Hybrid Tea to get a footing, and still harder is it to keep it, especially if, as in this case, the new-comer has to rely on shape and form rather than on colour. The shape or form is here all right; the colour does not help much, it being of the pleasing rather than of the striking order; the ground colour is flesh tinted, and flushed at its edges with pale pink. It is one of those Roses that it is quite easy for the expert to call distinct, and equally easy for the non-expert to say too much like something else. Personally, I am very fond of Rose Mrs. Forde. Here it has never come of a bad or even indifferent shape, always of that same beautiful spiral form—accentuated, perhaps, in this case above the ordinary—so that

in two senses of the word this is Mrs. Forde's strong point. A robust rather than a vigorous grower, but the flower is held upright on a fine, stiff stalk; petals of good substance; more impervious to wet than most; stands for a long time on the plant, and equally, when cut, retains its shape for days. Awarded the gold medal of the National Rose Society.

From Messrs. Alex. Dickson and Sons of Newtownards one passes naturally to Messrs. Hugh Dickson, Limited, of Belfast. Their 1913 set consisted of four Roses—two exhibition and two decorative—and of the four, three obtained the gold medal.

Coronation.—This is noteworthy as being the first Hybrid Perpetual to secure the gold medal since 1903, when it was awarded to Hugh Dickson;

one in ten years. It is an exhibition variety pure and simple, a fine grower, reminiscent, both in flower and habit of growth, of the older Her Majesty, but without that variety's predilection for mildew; at its best a really magnificent Rose. The finest bloom of it that I have come across was exhibited at the Southampton Rose Show last year (the bloom had been at the "National" in London on the previous day), grown by a local grower, Mr. H. Richards. It very nearly secured the silver medal for the finest bloom in the nursery-



ROSE MRS. FORDE, OF BEAUTIFUL SPIRAL FORM.

men's classes, but it was beaten by an extraordinarily fine flower of *Candeur Lyonnaise*, then at its best; but while *Coronation* went on improving all day, the other did not, and developed a nasty split. It is a tremendous stayer and requires no tying to keep its petals together; one of those flowers that be the day ever so hot, it may be relied on not to show its eye! Pale soft pink in colour, it is not difficult to grow, but requires and will take plenty of "encouragement."

Mrs. R. D. McClure.—A Hybrid Tea and a gold medal Rose, won at that Belfast Show in 1912 when the Irishmen surpassed themselves. What a show that was! I well remember the box of twelve blooms that gained for Mrs. R. D. McClure the coveted award. For beauty of form, clarity of colour and absolute evenness throughout, I

consider it one of the best boxes of twelve of a kind I have so far seen. Highly as I thought of it at the time, after growing it here ever since I see no reason to alter my first opinion of it. I consider it one of the best exhibition Roses Messrs. Hugh Dickson have given us. True, it is a pink, but a very brilliant glowing pink, of good habit and, for an exhibition variety, free flowering. It is strongly recommended to the exhibitor, who, if he has not got it, should look out for it in the boxes of the shows this season, and get it—he will not be disappointed.

H. E. Richardson is a brilliant deep crimson Hybrid Tea of very vigorous growth that was also awarded the gold medal at Belfast; but only occasionally will it find its way into exhibition boxes, and then only for its colour. Not that there is anything wrong with its shape, but it is hardly big enough to compete with the modern Hybrid Tea, and a good box must be uniform. A small flower, though it may be perfect, spoils the evenness of a box, and loss of "weight" more than discounts the advantage of colour, I am afraid, with many judges. To those who like a flower fully developed, rather than a bud for a buttonhole, it can be strongly recommended. Its chief virtue is its colour, and then its scent, both of which are delightful.

Seabird, a decorative Hybrid Tea, completes the tale of Messrs. Hugh Dickson's 1913 Roses. It is of a pale cream colour of the same shade as that old favourite (which, however, still takes a lot of beating) Mrs. David McKee. It is very free and of good dwarf habit; altogether a fine bedding Rose, with plenty of medium-sized flowers continuously produced; fragrant.

DELPHINIUMS

FOR creating bold effects in the outdoor garden, the stately Delphiniums or perennial Larkspurs are unsurpassed. Ranging as they do in height from 3 feet to more than twice that stature, according to the soil and variety, they can easily be

accommodated in beds or borders, or any other positions that it may be necessary to fill. Good blue flowers are not too common; indeed, one might almost say that they are rather scarce; hence we should make full use of these stately perennials, which embrace so many shades of blue. Fortunately, their cultivation does not call for any special skill. Good, generous diet, and attention to a few details that I will mention, are all that is necessary. Like every other plant that we undertake to grow, the Delphiniums well repay good cultivation, and for that reason the soil should be well and deeply dug, or, better still, trenched to a depth of 2 feet, and a liberal quantity of partially decayed manure thoroughly incorporated with it. Planting is best done in autumn, *i.e.*, from the third week in September

until the end of November, or during February and March, or the first week in April. For preference one would select autumn, as the plants then have an opportunity of becoming well established before flowering-time, which is usually June and July. As they are plants of goodly dimensions, overcrowding must not be tolerated, and from 2 feet to 3 feet apart is not too much space to allow.

The greatest enemy to Delphiniums, especially those that have been recently planted, is the ubiquitous slug. This insidious pest will, during the winter, scoop out the dormant shoots, and so ruin all prospects of flowers the following summer. It is important to remember this, because to it more failures can be attributed than to any other source. The remedy—a very simple one—is to cover each plant with a 2-inch thick layer of coal ashes early in the autumn and see that it is well worked down between the stumps of the old flower-stems.

Summer treatment consists of supplying copious quantities of water during dry weather, supplementing it once or twice a week with weak liquid manure, particularly a few weeks before the flowers open. This makes a wonderful difference in the size, and often the colour, of the blossoms. A 2-inch thick mulching of short stable or farmyard manure over the roots of the plants will also go a long way towards success, and is essential where the soil is at all sandy. It is not generally known that most Delphiniums will give a second display of flowers if properly treated. The *modus operandi* is to cut the flower-spikes down close to the ground as soon as the blossoms have faded; then *thoroughly* water the plants and, as soon as new growth is active, feed well with weak liquid manure and renew the mulching. If watering is persisted in during dry weather, secondary flower-spikes will soon be formed, and, although not so large and stately as those that opened earlier, will nevertheless be very welcome in the autumn months.

The simple operation of staking is, of course, necessary, and is only referred to here because it is so often badly done, the flower-stems being crisscrossed to a stake so that they form a passable caricature of a Birch broom. Miss Jekyll has adopted the most sensible plan that I know, and one that preserves the natural contour of the plants. Her method is to use natural sticks, such as are usually employed for supporting Peas, three or more of these being thrust in to each plant so that the shoots can push their way up between the branches.

Delphiniums from Seeds.—Although there are a great many named varieties listed in catalogues, a packet of seed purchased from a first-class firm will give a quantity of plants that are not very inferior, and which for ordinary purposes answer quite well. The seedlings are not difficult to raise. The best plan is to sow the seed in shallow, well-drained boxes or pans of sandy soil during April, May or early June, and place them in a cool greenhouse or frame. When 1 inch or

2 inches high, the seedlings must be transplanted to a bed of finely pulverised and well enriched soil, where, by the autumn, they will have made sturdy young plants that will give some good flowers the following May or June, though not so large as may be expected another year hence.

As Pot Plants.—For a large and not too much heated conservatory plants in pots would be ideal, and ought not to be difficult to manage. It would be necessary to pot up some strong crowns early in autumn, plunge the pots to their rims in ashes in the open or a cold frame for the winter, and bring them into very slight artificial heat as growth commences naturally. Any attempts at hard forcing would, no doubt, end in failure. The following are some good named varieties that are not too expensive for general planting:

Persimmon.—One of the prettiest of all. The flowers are clear sky blue and produced in

has a white eye that renders the whole very attractive. A strong-growing variety. Height, 4½ feet.

Sir George Newnes.—A semi-double variety with beautiful cobalt blue flowers, the inner petals flushed plum colour. Very effective when massed. Height, 4½ feet.

Althos.—Rich violet, flushed purple, with white centre. A most charming variety. Height, 5 feet to 6 feet.

General Baden-Powell.—Soft lavender tinted rose, with a brownish black eye. A very restful colour in the garden. Height, 4½ feet.

Sir Trevor Lawrence.—Sky blue, with the inner petals flushed rose pink, white eye. Good constitution. Height, 6 feet.

James Kelway.—Very rich violet blue flowers, each with a pronounced white centre. Very effective when massed. Height, 5 feet to 6 feet.



BORDER OF SEEDLING DELPHINIUMS EDGED WITH NEPETA MUSSINI.

abundance. The plant resembles Belladonna, but has a more robust constitution. Height, 3 feet.

Belladonna.—An old variety with sky blue flowers, which are produced very abundantly. Height, 3 feet.

Christine Kelway.—A tall variety with sky blue flowers and white eye. Considered by many to be an improvement on Belladonna.

Langport Blue.—This is a variety 5 feet or more in height. Flowers rich bright blue and spikes bold and large.

Rev. W. Wilks.—Deep purple flushed plum colour, with prominent dark eye to each flower. A superb variety. Height, 4½ feet.

Sir Walter Scott.—Deep rich blue, flushed violet, with prominent black eye or centre. Height, 4½ feet.

King of Delphiniums.—Semi-double flowers of rich gentian blue, flushed plum colour. Each

True Blue.—Perhaps the richest coloured of all the Delphiniums, the flowers being pure intense blue. It has a good constitution and grows from 5 feet to 6 feet high.

Princess Maud.—Unique in colour, which is sky blue, veined rose pink, each flower having a white eye. It is semi-double and of fairly robust constitution. Height, 5½ feet.

Two varieties of more recent introduction, and of great beauty, are the Rev. E. Lascelles and Statuaire Rude. The first named has rich violet blue flowers, with a pronounced white eye. It is tall and very erect. The second is a very stately plant, the large spikes standing well above the foliage. The flowers are a charming shade of soft lavender blue, with a slight flush of rose. They are semi-double and very large. There are also several varieties with so-called white flowers, but they are very poor compared with the blues. M. A.

JOTTINGS FROM A WELSH GARDEN

By A. T. JOHNSON.

It lies, this garden of ours, in one of the wooded folds of the big green hills which lean back against the blue summits where they touch the West. Save for the geographical fact of location, and that it owes some of its characteristic charm to the soft and kindly winters of North Wales, our Welsh garden is, like most others, a garden of exotics. That is to say, the native flowers and trees—save where they have made a successful appeal to sentiment and a sense of proportion—have gradually yielded place to others. Yet it is not like any other garden. Sometimes we think it is much more lovely than anyone else's, very nearly perfect in its own wild way, and an improvement on Nature's original design. And sometimes, but not very often, do we think it a very expensive and very demoralising toy; a thing that has enslaved us and bound us in the coils of everlasting labour in a little hedge-girt world in which there are many tribulations, very grievous, and few hours of respite from ill winds and slugs and voles and creeping things after their kind, male and female. We have an intimate acquaintance with them all.

But that is probably only because our garden has spoiled us. It is because its imperfections and the little worries it brings are so rare that we resent them or even notice them. Oh, no; it is not a model garden. It is really rather untidy. A professional eye discovers many things in it to disapprove of. But it is our garden, and we made it—made it, as I have said, from where Nature left off to a stage when the fruit of our labour upon it begins to ripen towards maturity. We shall never finish it; at least we hope not.

This has been a splendid year for Ferns. They are mostly common ones, and they fringe the little trout stream which flows through the wilder part of the garden; but they have this summer attained a height and splendour rarely achieved. One of a group of virgin Osmundas has just put up a "flowering" frond—a reward for long patience—and a colony of Oak Ferns brought from Norway is displaying a quite unusual vigour. At the water-side, between and along the outer edge of the Fern belt, Trolliuses have been making a brave display, rivalling in gold but not in grace *Meconopsis cambrica*, which swarms close by with unbridled liberty. But, like most bog-loving plants, the Globe-flowers would really make a bolder show were they afforded more sun than that which comes in a chequer of shine and shade through the overhanging Alder boughs. Still, their glistening bowls of gold and bronze are surpassingly beautiful in that changeful light. Some *Astilbes* (*grandis*, *Thunbergii*, *Queen Alexandra* and others), though scarcely well established yet, promise favourably along with the above. Some are already beginning to pour out their cascades of rose and creamy foam, to which the Fern fronds form so admirable

a setting. Among these also is a treasured and vigorous group of that fine *Spiræa*, *S. californica*, whose rose red spires we first fell in love with in the leafy glens that rib the foot-hills of Mount Shasta. Nor is the giant Goat's-beard (*S. Aruncus*) forgotten; but, to those who have seen them growing together in their native soil, this *Spiræa* should have that exquisite rose, the Salmon-berry, *Rubus nutkanus* of the Rockies, or *R. spectabilis* of California, to keep it company. For both of these we hope to find a corner later on. We hope to, I say, for it does not matter how



FERNS BY THE STREAM-SIDE IN A WELSH GARDEN.

extensive your wild garden may be, there soon comes a time when the difficulty is not so much one of filling a given area, but (1) of finding suitable sites equal to the number of subjects you would like to introduce, and (2) of selecting subjects that will be in perfect harmony with their surroundings.

In a clearing made by removing a colony of Scrub Oaks from a warm south-western bank we are establishing a collection of hardy Heaths. They do well in our red, shaly loam without the aid of peat. But as Heaths grow slowly and are not the best of subjects for maintaining a succession of colour, other things have been put among them, avoiding on the one hand any possible overwhelming of the *Ericas*, and not forgetting the necessity for careful selection just mentioned. Among these introductions is a group of *Mimulus*

(*Diplacus*) *glutinosus*, an admirable little shrub, and one that yields an interminable succession of large orange buff flowers from June until the first frost. Though strictly half hardy, we have never had any difficulty in growing this elegant *Mimulus*. One specimen in particular has not only yielded cuttings for the production of all the rest, but it has annually never failed to flower abundantly without any special care or protection for well over ten years. That gem among Rock Roses, *Cistus algarvensis*, with its bright yellow flowers with chocolate centres and grey-green foliage, vermilion tipped in the blooming season, also finds an honoured place on the Heath bank. There are Brooms, too—the attractive crimson and gold Daisy Hill being specially worthy of mention—and *Ceanothuses*, which with us often have a way of looking depressed—probably a touch of homesickness which will pass. *Hieracium aurantiacum*, the orange red Hawkweed, Scabiouses and *Achilleas* in variety, some Sages and Thymes, *Geranium pratense* and others, the dainty *Verbascum phœniceum* in violet and red—all these, together with dwarf ornamental Grasses, native and otherwise, are fast covering the soil where it was unavoidably rendered bare and unsightly in planting the Heaths. That, however, is to mention only a few of the summer bloomers which are associated with our Heathers, and it is enough for the present.

What further might be done without jeopardising in the slightest degree the distinctly unique character of the *Erica* groups alone is sufficient sometimes to make one ache, especially in war-time. Scores of fascinating ideas are framed on an average during our every Sunday morning prow, only to be thrust out of mind by a host of others still more fascinating and probably still more expensive. There is that leafy depression now smothered in Bracken; it is seen in imagination aflame with *Azalea Anthony Koster*. That cool, sheltered hollow sloping to the water; what a site for *Lilium giganteum*, with perhaps a bold cluster of the great peach-blossomed *Eremurus* spearing its way upwards towards the blue window in the Oaks above, the old brown loam about its base starred with innumerable *Erythroniums*, *E. californicum*, chrome yellow, for choice! Daydreams such as these are a very entrancing entertainment for idle hours. But it is war-time still. The Cabbage and Potato patch must suffer less than our wild garden. And it has these two years.

GENISTA VIRGATA

By the middle of July there are but few flowering shrubs other than the *Spiræas* and *Cistus*es, and this pretty Broom is all the more welcome. Although a native of Madeira, it is hardy in the southern half of England. It is well named *virgata* (twiggy), for though the Latin word refers more particularly to the straight, wand-like shoots that come from the base, yet these are so much branched and every branchlet is so closely set with little flowering twigs that the more general English meaning of the word is equally justified. Every twiglet bears its bright, light yellow bloom, and the whole bush, of rounded form, becomes a mass of flower. G. J.

CONIFERS

PROBABLY no class of garden plants is such an enigma to most people as are the Coniferæ, yet when the differences between the various genera are properly understood, there is no difficulty in classifying any conifer, each genus having distinct characteristics which are easy to learn and remember. In the following notes an attempt is made to show how a conifer can be assigned to its proper genus, the distinctions between species being too long to be described in a short article. *Abies* is the most commonly misapplied generic name in the whole Order, as it has been applied indiscriminately to *Abies*, *Picea*, *Pseudotsuga* and *Tsuga*. The first two are the greatest stumbling-blocks in gardens, the two names being either wrongly applied or else one is used to denote members of both genera. In the United States they are used opposite to the European classification; what is called *Abies* here they call *Picea*, and *vice versa*. The differences between the two genera are easy to remember. In *Abies* (the Silver Firs) the stems are smooth. The flat, narrow leaves are arranged in two apparent ranks, and leave a nearly circular scar on the branch when they fall. The cones are upright, and the scales fall with the seeds, leaving the central axis intact. In *Picea* (the Spruces) there is a projecting cushion at the base of each leaf, which gives a rough, ribbed appearance to the stems. The leaves are roughly four-angled in section, and are arranged all round the stems. The cones are pendent, and hang on the tree some time after the seeds are shed. In *Pseudotsuga* (the Douglas Fir) the habit and foliage are very like those of *Abies*, but the brown, pointed buds are easily distinguishable. The pendulous cones are like those of *Picea*, but differ in the three-lobed bract attached to each scale and projecting beyond it. *Tsugas* (the Hemlock Spruces) have small, narrow leaves arranged apparently in two rows, but have a row of smaller leaves in the centre in line with, and closely adpressed to, the stems. The cones are terminal, very small, with thin, woody scales, which are persistent for some time after the seeds have fallen.

Another section of Coniferæ that is often confusing is that comprised by the genera *Cupressus*, *Juniperus*, *Libocedrus* and *Thuja* (not *Thuja*, as it is often called). The *Cupressuses* are divided into two sections, true *Cypresses* and *Chamæcyparis*. The former are characterised by a uniformly upright habit, scale-like leaves closely adpressed to the stems, and round or oblong woody cones ripening in the second year. Practically the only hardy members of this section are *C. macrocarpa* and *C. sempervirens*. The *Chamæcyparis* section differs from the true *Cypresses* in having larger leaves and spreading, flattened branches. The cones are smaller and less woody, ripening in the first year. Examples: *C. Lawsoniana* and *C. nootkatensis* (often erroneously called *Thujopsis borealis*). *Juniperus* is

easily recognised by the peculiar odour given off by the foliage when crushed, and by the round, fleshy cones, which are black or purple black when ripe. The somewhat pungent smell is common to the genus, and is quite different to that of *Cupressus*, with which it is often confused. The *Thuyas* are trees or large shrubs with flattened branch systems, tiny adpressed leaves, and oblong or pointed cones, the scales of which are thickened towards the tips. *Libocedrus* differs from *Thuja* in having larger leaves and more spreading, flat branches, which look the same on both surfaces, so that it is sometimes difficult to tell the upper part of the branches from the lower.

The only other section of Coniferæ calling for mention is that included under the generic term *Retinospora* (not *Retinospora*, as it is usually pronounced), which has no botanical significance, but is a term common in gardens. The plants

deep cavity in the centre on the top side. Owing to their comparatively large size the bulbs ought to be planted not less than 5 inches deep, and in small colonies of five, seven or nine, allowing about a foot between the bulbs. Where the soil is very heavy and wet, it is advisable to surround them with some coarse sand, and under any circumstances it is advisable to plant them on their sides; if placed upright, the cavity previously referred to becomes filled with water and is a frequent source of decay. H.

DIANTHUS ALPINUS

THE Alpine Pink is a native of the Eastern Alps and mostly confined to Styria and the Tyrol. It is quite one of the most beautiful of all the dwarf-growing kinds, as well as one of the most



THE TRUE ALPINE PINK: DIANTHUS ALPINUS.

under this name are really seminal forms or sports from *Cupressus obtusa*, *C. pisifera*, *C. thyoides* and *Thuja orientalis*. J. C.

THE CROWN IMPERIAL

OF those flowers which are usually associated with old-world cottage gardens, the Crown Imperial, as the large *Fritillaria imperialis* is often called, deservedly occupies a prominent position. The success achieved with this flower in such gardens is due in a large measure to the fact that the bulbs are allowed to remain undisturbed for a number of years. It deeply resents disturbance, and it is only from well-established examples that the full beauty of the blossoms is revealed. Much, however, may be done by early planting, and as most bulb-dealers can supply bulbs by early September, they should be planted at that time. The bulbs have a curious rugged outline, with a

distinct species. With broad, dark green, shining foliage it forms a close mat, from which are produced the large, handsome flowers. These are produced singly on stalks about 2 inches high, while the rosy pink flowers, about 1½ inches in diameter, have a zone of darker spots near the base of the fringed petals.

In well-drained, gravelly soil that is kept moist it is easy to grow, and is one of the few Pinks that are not partial to lime. It is propagated by cuttings in summer, or by means of seeds, which come fairly true. It has been crossed with *D. callizonus*, the hybrid being called *D. cal-alpinus*. This has more the foliage of *D. alpinus*, while the flower has a much darker zone near the base of the petals. Both are subject to a little grub which eats into the stem and causes the leaves to turn yellow, and this is an indication of its presence. Hand picking is the best remedy. W. I.

ANTIRRHINUM NELROSE

I SHOULD like to say a few words in praise of the above variety. For beds or borders it is invaluable, the colour just that charming shade of salmon pink that is so much admired either by artificial or natural light. In May, 1915, some fifty plants were purchased, quite small, and planted in two square borders. They bloomed fairly well during the summer and autumn, but gave no indication of the wealth of flowers that was to follow the ensuing season, 1916. Each plant now bears from nine to twelve stately spikes.

This variety is ideal in every way—height from 2 feet to 3 feet, splendid bushy habit and wonderfully free, planted *en masse* for effect or in conjunction with other subjects, in this case in accordance with the original plans. Last autumn the borders were enlarged, leaving the Antirrhinums in the position they occupied. They came through a trying winter and spring, with the exception of one or two casualties. The soil is heavy loam and the aspect east. After completion, the borders were filled in with Canterbury Bells (white, pink and blue) planted indiscriminately between and around the Antirrhinums, the two flowering together. The effect has been simply gorgeous and has won unstinted praise, and by cutting off the old blooms of the Canterbury Bells, and with them the embryo seed-pods, at the same time cutting out the tallest spikes of the Antirrhinums that have pods at their base, a continuation of the display is ensured for some time.

As seed of the above Antirrhinum cannot be relied upon to come true, cuttings must be taken in autumn and rooted in a cold frame after the manner of Pentstemons. Any reader trying the above combination will, I feel sure, be amply rewarded.

Bexhill.

W. D.

THE FRAGRANT HONEYSUCKLES

PRIZED occupants of numerous old-fashioned gardens, several Loniceras which are now flowering freely deserve much more attention from present-day cultivators. They would prove welcome additions to many villa and suburban gardens, where, climbing over arbours and porches, clothing screens, fences and bare walls, or on arches and pillars, the delicious fragrance of the flowers would pervade the air. Not by any means the least attractive is the native Honeysuckle of our hedgerows, *Lonicera Periclymenum*, companion plants or varieties of which are the Dutch Honeysuckle, *L. P. belgica*, and the later-flowering *L. P. serotina*. *L. flexuosa* and *L. Halleana* are forms of the Japanese Honeysuckle, and attractive subjects for arbours and verandahs. *L. plantiænsis*, *L. Sullivantii*, *L. Heckrottii*, *L. Hendersonii* and *L. Charlottii* are all beautiful Honeysuckles for pillars and fences. Cuttings inserted now root readily in the greenhouse propagating-frame or in a cold frame.

FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

Strawberries.—The ground ought now to be prepared for new plantations, and the runners planted as soon as possible. If this is done, the young plants will have an opportunity to become well established before the winter arrives. Make the soil fairly firm about the roots. The distance between the rows will depend to a great extent on the variety grown. Such as Royal Sovereign is often given 30 inches, but this I always consider

as Ailsa Craig or Giant Rocca, and sow in drills a foot or 15 inches apart. When the seedlings appear, the hoe should be used freely between the lines.

Runner Beans.—Plants that are fruiting must be supplied with plenty of water and an occasional application of liquid manure. Keep the pods picked regularly, which will cause the plants to fruit for a much longer period.

Lettuce.—Weekly sowings should be made during this month with the object of securing a good autumn supply. All the Year Round and Commodore Nutt are both suitable kinds for present sowing, and for a later batch Hardy White, Continuity and Stanstead Park may be chosen.

The Flower Garden.

Propagation of Bedding Plants.

Where time can be spared and the growth is available without destroying the beauty of the beds, the propagation of various bedding plants may begin. A start should be made with the "Geraniums," and when the cuttings are prepared they may be inserted around the edge of a small pot which has been filled with sandy soil. Arrange the pots in a cold frame, and, when the cuttings are rooted, the lights may be removed until the autumn. The propagating season will be extended over next month, but it is advisable to do as much as possible during August.

Violas are great favourites in many gardens, and a quantity should be propagated annually. When they cease to bloom, the growth should be cut back near the base. This will cause new shoots to appear, which make excellent cuttings when about 2 inches long. They should be placed in a cold frame, and directly they form roots admit plenty of air.

Plants Under Glass.

Bulbs.—Roman Hyacinths ought soon to be procured and potted, or planted in boxes if a large quantity is grown. Narcissi, such as Paper-white, may also be potted, and then plunge the pots in well-seasoned ashes to a depth of several inches. Water is not generally required until after the pots are taken out of the ashes. Place them in a cold frame, and gradually expose the foliage to the light.

Mignonette.—If bloom is desired in the early spring months, seeds must now be sown in small pots. Later on the seedlings should be placed in pots 6 inches in diameter, making the soil quite firm.

Cinerarias.—The most forward plants may be moved into larger pots, using a mixture of loam, leaf-mould and decayed manure in equal parts. A moderate sprinkling of sharp sand must be added. The plants should be grown

in cold frames, and allowed plenty of room to develop their leaves. Ample ventilation must be provided, and a little shade will be needed during very hot weather.

Fruit Under Glass.

Peach Houses.—Early trees which have been gradually hardened, if they are at all crowded, may have a portion of the old, useless wood removed. Trees just cleared of their fruit may have the border mulched with decayed manure, especially if it is shallow, which will prevent it becoming excessively dry, a source of many evils. Trees that have produced gross wood will need no manure. Later on it may be expedient to lift them.

T. W. BRISCOE.

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THE STATELY ANTIRRHINUM NELROSE.

a waste of ground. A foot each way is ample to begin with; then every alternate line should be eventually cut out after a crop of fruit has been gathered.

Raspberries.—Remove all last year's canes directly they have ripened their fruit, and thin the new canes to the requisite number. The autumn-fruiting varieties must be given water if they need it, also a mulch of partly decayed manure will be beneficial.

The Kitchen Garden.

Globe Artichokes.—Directly the crop is removed, the stems must be cut out and the ground between the plants cleared of weeds.

Onions.—Seeds should now be sown to produce plants for putting out next spring. Select such

FOR NORTHERN GARDENS.

The Kitchen Garden.

Sowing Onions.—From the present date till the middle of the month will be found the best season for sowing these in most Northern gardens, and, like other vegetables sown in autumn to stand the winter outside, should be sown on fairly firm soil, from which the bulk of them are usually transplanted in spring into a well-manured plot. All the varieties usually recommended for autumn sowing are hardy, although several of those enumerated for spring sowing have proved equally suitable for this purpose.

Celery.—Keep frequently stirring with the hoe between the young plants in the trenches until they become too large to allow a free passage. The earliest plantation should soon be ready for a first earthing up. Do not attempt to blanch them too quickly, or growth will be arrested. Remove some of the lower small leaves, also any side growths from the base of the plants, before earthing up. Collars of brown paper are frequently used by exhibitors to assist in the blanching process. These prevent the fine particles of soil from getting between the leaf-stalks and give the heads, when lifted, a much cleaner appearance. If Celery fly is troublesome, it is generally about this season it appears. Frequent dustings of soot are a good preventive besides being a good fertiliser.

The Flower Garden.

Clipping Hedges.—Hedges of Yew and Holly may now be clipped, as very little growth will take place after this date, and where these are extensive it takes a considerable time to get over them, especially when so much other work demands attention. Specimen trees and topiary work require the attention of experienced hands to trim them correctly. Beech hedges should also be trimmed as soon as the growth stops.

Antirrhinums.—As soon as the main shoots have finished flowering, they ought not to be allowed to develop seed-pods, but should be cut over. Lateral shoots will thus be strengthened and furnish a good display of flowers till late autumn.

Dahlias.—The strong growths now being made should be supported with stout matting or soft twine, supporting each shoot individually by looping it to the stake, as these are easily damaged by wind. Exhibitors will, of course, thin out the growths and give stimulants when necessary. The finest of the Cactus Dahlias for show purposes are, however, of little use for general decoration in the garden, as the bulk of their flowers are hidden in the foliage. A large selection can, however, be made of suitable varieties. The bulk of the Anemone and Collarette sorts lend themselves admirably for an effective display in the flower garden.

Fruits Under Glass.

Apples and Pears in Pots.—These should now be removed out of doors to perfect their colouring. Some protection will be required from birds; each fruit should also be supported with a piece of old herring-net. If the pots are partly plunged in ashes or other material, a saving in watering will be effected.

Peaches.—The ripening fruits require support if it is the custom to leave them on the trees until fully ripe, otherwise the finest fruits will fall and be damaged. Much labour as well as fruit can be saved if the trees are gone over every second day and all fruits nearly ripe gathered; their flavour will in no way suffer from being picked when just under-ripe. Continue to remove all lateral growths before they attain large dimensions. Thin out useless shoots, and wash freely those trees cleared of fruit.

Plants Under Glass.

Mignonette for Winter Flowering.—Sow two to three seeds in small pots, afterwards removing all but the strongest plant. Pot them on before they become pot-bound, and keep them growing under comparatively cool conditions. Pinch out the points when about 3 inches high. Careful watering is essential.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

ALL AMONG THE ROSES
AT ALLINGTON

BY "ANNE AMATEUR."

I WENT last week to Allington, to look at Roses "all a-growing and a-blowing," in preference to going up to Holland House Show; for Roses at a show are like girls at a ball—all got up to look their best, and giving small clue as to their everyday selves. Roses in a nursery are like children at school—carefully tended and under training, but showing some of their faults and merits; while Roses in the garden are at home, and one sees their true dispositions and fullest beauty (and their failings, too, unfortunately).

Among the bewildering number of varieties at Allington, I noted a few in particular. Of yellow

or he would not have made the remark). We had "Daffodil dinners," too.

Mme. Herriot is a wonderful mixture of colours, recalling spindle-berries, which always seem as if they *ought* to be wrong, yet are not. I did not like Old Gold. It seems to me almost ugly and quite wrongly named, for it looks more like overcooked salmon. The long, pointed bud of Pharisaër is a very perfect example of that shape—the only one now desired—but *why* is a mystery. Many rounded buds are quite as beautiful from an artistic point of view, and often open into better-formed and more durable flowers, points to be desired in garden Roses.

For perfume, Laurent Carle carried the palm. Its true Rose scent did not make one think of any other thing than Roses. Some "Tea" Roses smell like hay, and several have (to my nose) a still stronger reminiscence of good tobacco—like the special cigars my father was wont to



ROSA MACRANTHA. A CHARMING FLOWER OF SOFT PINK COLOUR.

Roses, Rayon d'Or, which, though of somewhat muddy mustard colour in bud, is a pure and beautiful yellow when fully open; unlike many modern Roses, beautiful in bud, but disappointing when full blown (like fascinating kittens and fluffy chicks, which grow up into commonplace cats and horrid hens). I find Rayon d'Or lasts well as a cut flower. Another beautiful full-blown flower, for table decoration, is Lyons Rose. I should choose to float it in water in a large cut-glass bowl. When I said so, Mr. Bunyard told me that was the "last new way" of showing Roses, at which I laughed, for I decorated our own table, for my mother's annual "Rose dinner" parties, with her finest full-blown specimens in this fashion, in the seventies of last century. Truly, "there is nothing new under the sun" (nor was, in the days of "the Preacher" evidently,

bring out for my critical young bachelor uncles. (Mr. Bunyard, being a smoker, will, I hope, appreciate this remark.) One of these tobacco-scented Roses is St. Helena. Mrs. Charles Pearson is lovely; it has a curious effect of glowing with light from within, as if it carries sunshine in its heart.

Some of the best garden Roses seemed to be General Macarthur, Orleans, Mme. Mélanie Soupert, Prince de Bulgarie and Ecarlate (which is almost scarlet), but it is invidious to make selection of the best among so many good ones.

For myself, I prefer single Roses and the lovely Rosa Macrantha is surely one of the best of them. These are the Roses I dreamed of and longed for in girlhood—Roses with the simple, graceful form of wild ones and the varied colours of garden ones, though I

never dared to suggest it, knowing well it would be derided as "one of Nan's nonsensical notions." When I first saw some at a show, I had to pinch myself *hard* to make sure I was not *still* dreaming! Among all the Roses at Allington, the one that delighted me most was Maharajah, a Rose well named for its dusky Oriental splendour of deep crimson velvet petals and centre of rich gold. It recalled some very beautiful Armenian school-fellows, who said severely to me: "How dare you wear crimson, you fair-haired little English girl? It is *our* colour!" Of all the Roses I saw last week, I would choose this and Gottfried Keller, and, next, Sheila Wilson, Irish Elegance and Jersey Beauty.

A queer-looking Rose was Irish Engineer; it aped a Begonia to my eyes, at a little distance. Another good garden Rose—variable in colour, but none the worse for that, from an amateur's point of view—is A. Hartman. Its heavy petals of rose du Barri hue made me think of curtains in salons of old French country châteaux. Alas, alas, for the fate of some of those old châteaux now!

EDITORIAL NOTICES

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

TREES AND SHRUBS.

FLOWERING SHRUB AND ITS ORIGIN (A. W.).—The specimen sent for identification appears to be *Philadelphus Lemoinei*, although it was very badly shrivelled on arrival. *P. Lemoinei* is a hybrid between *P. coronarius* and *P. microphyllus*, and it was raised in France.

ROSE GARDEN.

BLACK SPOT ON ROSES (E. de J.).—Your Roses are badly attacked by black spot, due to the fungus *Actinonema rosæ*. All the diseased foliage should be collected and the bushes sprayed with Bordeaux mixture. Next year this spraying should be commenced early—in May is best—and continued at intervals of about three weeks. You will find some varieties very much more susceptible to this disease than others.

ROSE BUD WITH PECULIAR GROWTH (A Regular Reader).—The moss-like substance on the bud sent is evidently the work of one of the gall flies, probably the *Bedequar* gall fly that is responsible for the "robins," as they are commonly called, which appear on our hedge Briers. The female selects a young shoot and makes an incision to deposit her eggs, and the sap thus interrupted causes this growth.

THE GREENHOUSE.

IVY-LEAVED GERANIUMS DISEASED (Gt. Yarmouth).—Your letter is no less a puzzle to us than to the florists in your neighbourhood. It would have helped us greatly if you had sent an affected plant with the small white things referred to. Some varieties of Ivy-leaved Geranium more than others are subject to a kind of eczema, in which the leaves curl up and the stem becomes blotched. This is particularly liable to attack plants that have been given stimulants in a liberal manner. The disease that is troubling you would appear, however, to be quite distinct therefrom. From your note, plants other than Geraniums are also attacked, while the pest is, in addition, to be found out of doors. If smoking or vaporising is of no avail, it would suggest that the trouble is of a fungoid nature; but, as above stated, we can say nothing definite without seeing a specimen. If it appears to be a fungus, you might spray the plants with a solution of potassium permanganate. This can be readily made by dissolving the crystals in warm water. It should be of such a strength that the solution is of a rose tint.

THE POT CULTURE OF GERANIUMS, AND OTHER QUESTIONS (North Lancashire).—The present is a very good time to take cuttings of Geraniums (or, more properly, Zonal Pelargoniums) in order to obtain flowering plants for late spring and summer next year. A good compost for the final potting may be made up of three parts fibrous loam to one part leaf-mould, and a sprinkling of sand and bone-meal. It is better not to use manure in the potting soil, as this tends to gross shoots rather than flowers, and the necessary stimulant can always be applied later on when the pots are filled with roots. They should be given a good light position in the greenhouse. After they are potted, watering must be carefully done until the roots are active. The plants should be pinched if they show a tendency to grow out of shape, as some varieties are naturally more bushy than others. As the flowers develop, some stimulant will be very beneficial. Whatever is used, whether it be one of the many plant foods now on the market, guano, or liquid manure, care must be taken not to give it too strong. It should be applied at intervals of a week or thereabouts. Your question *re* *Schizanthus* refers, we presume, to the group of dwarf plants shown by Mr. A. Dawkins, seedsman, King's Road, Chelsea.

ZONAL PELARGONIUMS FOR WINTER (J. W. D.).—In order to obtain good flowering plants throughout the winter, cuttings should be struck in the spring, choosing good sturdy shoots for the purpose. When rooted, they must be potted singly, and as soon as the young plants take possession of the new soil, the growing points must be pinched out in order to induce a bushy habit of growth. Plants left over from bedding will make good specimens for winter blooming, providing the varieties are suitable and the right treatment is given them. A few good varieties for winter blooming are Aldenham, deep crimson; Ascott, salmon; Barbara Hope, salmon pink; Cymric, purple, white eye; Duke of Bedford, red; Frogmore, magenta and crimson; Hatfield, rose pink; Hall Caine, cherry red; Jupiter, scarlet; Kingswood, scarlet, white eye; Lady Warwick, white, edged pink; Mars, crimson; Mercury, orange scarlet; Mrs. Brown Potter, bright pink; Mrs. John Ward, salmon; Maxime Kovalevsky, orange salmon; Naples, deep scarlet; Prince of Orange, orange; Rider Haggard, scarlet; Sir T. Hanbury, crimson, shaded scarlet; Sir W. Laurier, magenta and white; Snowstorm, white; St. Louis, crimson scarlet; The Mikado, cerise; The Sirdar, scarlet; Uranus, rosy cerise; and Venus, white.

FRUIT GARDEN.

INJURY TO GOOSEBERRIES (A. D., Berkhamsted).—Your Gooseberries appear to be suffering from an attack of red spider. Spray with potassium sulphide or dust with flowers of sulphur. Even cold water spraying would probably have a good effect. Are the plants in a dry position or suffering from shortage of organic manure in the soil? Yes; wire-netting overhead has an injurious effect upon the growth.

APPLE BLOSSOM WEEVIL (E. S. C.).—The insect attacking your Apple trees is the Apple blossom weevil, *Anthonomus pomorum*, a very troublesome pest. It lays its eggs in the unopened bud, and the grubs, which hatch in about six days, feed on the stamens, the flower withering and never opening. The best treatment (in addition to clean cultivation) is to shake the trees attacked over a sheet and collect the weevils when they are about in April and early May. Spraying is of little use, and grease-banding, often recommended, does not catch many.

GRAPES NOT COLOURING (Wilts).—Our correspondent says: "For two or three seasons past the Grapes in a lot of the bunches in my Vine-house have remained red, and not turned black like the others. Could you tell me the cause of this?" This is quite an infrequent experience among Grape growers, and is generally confined to the Black Hamburg variety. This being so and the result

of no great consequence, no serious thought has been directed, as far as we know, to find out the cause or provide a remedy. It is not a disease, as it usually happens on healthy and vigorous Vines. Nature in the process of colouring the berries has in some mysterious way left a few berries imperfectly finished by her brush, and, unlike the human artist, has not the licence or opportunity reserved to her of retouching up her subjects. The only suggestion we can make as to the cause is that there are some elements in the soil necessary for this purpose not so soluble and active as they ought to be, probably in consequence of a deficiency of lime in the soil. We therefore suggest that lime should be liberally added to the top-dressing soil of the border in autumn, and even a dressing forked into the surface of the border now (4 inches deep). Take also the added precaution of giving abundance of air during the colouring time in favourable weather.

PLUM TREE DISEASED (A. R. V.).—Your Plum tree is evidently suffering from silver-leaf disease. There is no real cure for this disease, even when so-called remedies are applied by experts, so that it is hopeless for amateurs to hope to succeed. The best thing to do is to root up the tree and burn it. The soil should also be burnt; that is to say, the surface soil to the depth of 5 inches and for a radius of 3 feet from the stem of the tree. The way to burn the soil is to light a pile of wood and a bit of coal mixed with it, and cover over, about 9 inches deep, with the infected soil until it becomes so hot that you cannot bear your hand on it. You may then be certain that all live organisms of disease will have been destroyed. On the face of it, this seems rather a serious matter; but really it is not so.

PEARS AND JUNIPERS ATTACKED BY SAME DISEASE (J. R. N.).—You are right in thinking the fungus on the Pear leaves is a stage in the life of the one which occurs on the Juniper. It is perennial in the latter, and, once attacked, the tree is almost sure to prove a source of infection to Pears in its neighbourhood in each succeeding year. If you are sure that only one of the Junipers is attacked, no doubt the destruction of that tree would save the Pears from further attack, but at the same time others in the neighbourhood may prove a source of infection. Another method of dealing with the disease is to spray the Pears with Bordeaux mixture in early June (serving as a check also to Pear scab and similar fungi at the same time). This would doubtless prevent the germination of the spores in the early summer on the Pear, but it would need repeating annually.

PEACHES DROPPING BEFORE RIPENING (Mrs. M. W.).—We sympathise with your disappointment. It is very annoying after the labour and anxiety of bringing the fruit almost to maturity to suffer the loss of it in this mysterious way. There is no mystery as to the cause of the fruit dropping prematurely. The absence of a fully developed kernel (the vital spark in the stone) will account for this. It is not so easy to account for the disease or absence of the kernel. The chief cause, we think, lies in the exhaustion of the soil and the absence of some elements necessary to the formation of this particular part, more especially lime. As soon as the leaves have fallen in the autumn, take away the surface soil of the border until you come across a fair quantity of roots. (This generally means taking away the soil to a depth of about 10 inches.) Then add a top-dressing of new soil to the depth of 8 inches, composed as follows: To a barrow-load of turfy loam, broken fairly small, add a bushel of broken bricks, crushed rather small, a peck of lime, a gallon of soot, and the same of bone-meal. Mix well together and press firmly down after applying. Give the border a good soaking of manure-water before applying the new soil. It will also be necessary to artificially fertilise the blossoms in spring. This is done by means of a rabbit's tail. Draw the tail over the pollen of the flowers at about midday when quite dry, and then apply the pollen to the stigma or centre column of the flower (the embryo fruit). This will greatly aid perfect fertilisation. Ventilate freely while the trees are in bloom and keep the air as dry as possible.

MISCELLANEOUS.

NAMES OF PLANTS.—C. C. F.—1 and 2, *Sempervivum Funckii* varieties; 3, *Sedum reflexum*; 4 and 5, *Campanula rotundifolia* varieties; 6, *Erigeron multifidus*.—Torquay.—*Helminthia echinoides* (Ox-tongue).—W. B.—1, *Campanula rhomboidalis*; 2, *Dianthus deltoides*; 3, *Saxifraga hypnoides*; 4, *Phlox reptans*; 5, *Veronica austriaca* Prenja; 6, *Campanula carpatica*; 7, *Phlox lilacina*.—K. M. R.—1, *Origanum vulgare*; 2, *Ballota nigra*; 3, *Sisymbrium officinale*; 4, *Circea Lutetiana*; 5, *Epilobium parviflorum*; 6, *Diplotaxis muralis*.—J. H. S.—*Erica cinerea*.—H. G. S.—Probably *Rosa alpina*.—H. O., *Kirkcaldy*.—The Iris is *xiphioides*, the Pyrenean species, as far as we can tell.—Mac.—*Leontine Gervaise*.—E. H.—1 and 2, *Phlox garden* seedlings, cannot match; 3, *Sedum reflexum* variety; 4, *Sempervivum tectorum*; 5, *Veronica longifolia*; 6, *Solidago canadensis*.—Rex.—1, *Lonicera sempervirens*; 2, *Spiraea japonica*.—Mrs. E. C. B., *Bucks*.—*Escallonia macrantha*.—M. E. B.—*Jacobinia magnifica* carnea, a greenhouse plant, native of Brazil.—Guelder.—1, *Sidalcea spicata*; 2, *Veronica austriaca* Prenja.—W. F. W.—*Silene Armeria*.—A. B. H.—1, *Silene Armeria compacta*; 2, *Vincetoxicum nigrum*.—F. W. W.—*Veronica longifolia* rosea.—T. W. G.—Leaf with sinuate edge is *Hyoscyamus niger* (common Henbane). We cannot identify the other; kindly send a better specimen. —E. C. B.—Yes.

THE GARDEN.

No. 2334.—Vol. LXXX.

AUGUST 12, 1916.

NOTES OF THE WEEK

OWING to the necessity of the Royal Horticultural Society's building being placed at the disposal of the contingent of soldiers from Australia, there is some difficulty in immediately finding any other suitable hall. The Royal Horticultural Society's fortnightly meeting announced in the programme and entered on Fellows' tickets for Tuesday, August 15, will be held as announced. Due notice of further arrangements will appear in a later issue. This notice applies to all the committees including the scientific committee, and to plants, &c., to be put before them, as well as to Fellows and the general public.

A Valuable Hybrid Rock Rose.—*Cistus Loretii*, a supposed natural hybrid between *C. ladaniferus* and *C. monspeliensis*, is one of the most valuable of the family, it being hardier than most and, what is very important, keeps its flowers open in the afternoon. Evergreen in character, it forms a spreading bush some 3 feet to 4 feet high, and more in diameter. The flowers are white, some 2 inches to 2½ inches across, with the usual circular basal blotches. They are freely borne several together in terminal clusters. Well-drained positions on sunny borders and slopes should be chosen when planting this and other beautiful Rock Roses.

***Sisyrinchium striatum*.**—Few plants make so good an effect in early July as this easily grown Iris-like sheaf of leaves is good to see at all times, but throughout July the masses of pale yellow bloom, especially in the sunny hours of the forenoon, are among the brightest things in the garden. Each tuft throws up from twenty to thirty spikes of bloom about 2 feet high, closely set, as to the upper 12 inches, with the whorls of flowers. It is a Chilean plant and enjoys a warm place in full sunshine in light soil.

The Mount Etna Broom.—In *Genista ætnensis* we have one of the showiest and most valuable of the Brooms. Flowering freely during July and early August when the majority of flowering shrubs are past, it should be freely planted in the pleasure grounds and shrubbery borders. The

Mount Etna Broom is an elegant shrub of graceful habit 12 feet to 20 feet high, or, rarely, a small tree exceeding this height. A native of Sardinia and Sicily, the plants are very hardy and thrive in most soils, notably those of a sandy character. The golden yellow flowers are freely produced, and in most seasons an ample crop of seeds is ripened, providing a ready and rapid means of propagation. Transplanting indifferently, the young plants should be grown in pots until planted in their permanent positions.

Dutch Iris Rembrandt.—When a variety has had the crowning test of garden cultivation for several years and then receives an award of merit from the Floral Committee of the Royal Horticultural Society, it may be taken for granted

that it is well deserved. It is an old friend when it is brought forward and no longer a new acquaintance of yesterday; hence a good deal more is known about it. The Dutch Irises may be described as featuring the well-known Spanish, but earlier and with rather larger flowers. They were "made in Holland" in the nursery of Mr. C. G. van Tubergen at Haarlem, and it may interest readers to know that it was the Rev. J. Jacob who first suggested the name to Mr. Tubergen's nephew, who was the matrimonial agent in their production. Rembrandt is a grand rich blue, with most conspicuous orange blotches on the falls; robust in growth and hardy in constitution. It blooms from ten to fourteen days before the earliest Spanish. It is about the pick of the bunch, which is saying a great deal.

Peckham Rye Park.—Among the numerous parks controlled by the London County Council, this is one of the most interesting and beautiful. Situated in the thickly populated South-Eastern district, it provides welcome relief to thousands of workers and their families. In so far as is possible, there is abundant evidence that the responsible heads have made a point of retaining the natural beauties of the position, and whatever improvements have been made—and these are numerous—add to the natural charm of the park and garden without in the least detracting from the sylvan beauty of the trees and wide, open playing fields. The Old English or Saxeby garden is now well established and gay with flowers, providing a pleasing change to the more or less formal summer bedding. As in many other parks, most of the flower beds have been grassed over, and among frequent visitors some at least vote it an improvement. Bamboos, planted in clumps on one of the lawns bordering a stream, are in splendid condition and in considerable numbers, the winding stream crossed by rustic bridges adding to the charm. The most recent improvement is a rock garden.



THE SATIN FLOWER, SISYRINCHIUM STRIATUM.

* * * Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Roses Named in Honour of M. Pernet-Ducher's Two Sons without Consent.—We have received the following letter of protest from M. Pernet-Ducher, rosieriste, of Vénissieux-Lyon (Rhône): "On June 15 last, at the meeting of the Jury in Bagatelle, when waiting for the hour fixed for the examination, Mr. Forestier, Commissioner of the Walks, to whom the direction of the rosary is confided, very kindly showed me some beautiful and very interesting Roses, also the new Roses planted in the spring of 1916. Among the latter were twelve varieties sent there by Messrs. Verschuren and Zonen, nurserymen, Haps, Holland. A very sad surprise was reserved for me, for I was stupefied to read on two of these Roses, planted in a public garden, the names of my dear and lamented sons, Claude and Georges Pernet, both of whom have laid down their lives for their country. On my request, Mr. Forestier very kindly ordered both names to be taken away immediately, for which I am much obliged to him. I have just read in your paper that at the Royal Horticultural Society's meeting and exhibition on July 18 a new Rose was shown under the name Souvenir of Georges Pernet. Will you please advise your readers that this was done without any permission from me, and that I reserve to myself, as is my duty and right, the honour to name two of my best new Roses after my dear sons."

Rose Margaret Dickson Hamill.—I have read the note from Mr. H. E. Molyneux in your issue of July 29, page 366, respecting this Rose with much interest, chiefly because my experience entirely disagrees with his. I saw the basket of blooms of this variety at the Royal Botanic Gardens, and I fully concur with Mr. Molyneux that it was one of the features of the show; and although, of course, no one could be so unloyal as to grudge Her Majesty Queen Alexandra the possession of it, it was a grievous disappointment to many visitors that they could not see it. I was so fully impressed with the view I had of this basket of Roses that the first thing I did on my return home was to look up my own plants. Alas! I had to curb my impatience, as they were not in bloom. Since then I have watched them almost daily. The plants are vigorous, of good habit, with fine foliage, heaps of blooms, but, alack-a-day, one develops after another pale lemon, base of petals buff, hardly to be called yellow at all. To-day (July 27) there is a really yellow bloom, but not such a yellow as my memory recalls when I saw it at the National Rose Society's show, and, judging from plants grown in the nursery, not disbudded or shaded, but just *au naturel*, not a patch on Mrs. Wemyss Quin or, for colour, on Iona Herdman. I ask myself the question, Why is this great difference? I had the plants from the raisers, so they are true, and the bloom to-day confirms this, but the colour soon fades with me. I thought it must be a question of climate, for I know the Irish Roses often get a colour which we never see here; but, then, Mr. Molyneux has the colour on his plants. Is it a question of soil, feeding, shading or what? Or is this a Rose like Sunburst, which comes pale early in the season and only gets its colour later? I should much like to know.—A. H. PEARSON, *Lowdham*.

Assisting the Coloration of Roses.—It is a question whether colour at the present day does not stand more prominently as a feature of our garden Roses, than even form. The wonderful shades and tints now being produced are really marvellous. This was evidenced at the recent display of novelties put up by the National Rose Society, when such lovely gems as Golden Emblem, Flame of Fire, "K. of K.," &c., received the blue ribbon of the Rose world. Many privileged visitors caught a glimpse of most wonderful blooms worn by Miss Willmott and Dr. Williams of a variety which I believe is to bear an exalted name. This Rose will even rival the remarkable Juliet. Many amateurs are quite aware that colour can be much enriched by good manuring, and those who find a difficulty in obtaining manure will be pleased to learn that Wakeley's Hop Manure is splendid for the purpose. Roses watered with liquid made from this famous preparation come a very rich colour, such kinds as Lady Roberts, George C. Waud, &c., being scarcely recognisable when compared with flowers of the same varieties that have received manure very sparsely. I have much pleasure in testifying to the great value of this Hop Manure, both for enriching the colour and in promoting a healthy, vigorous growth.—DANECROFT.

Rose Gustav Grunerwald.—I quite agree with "C." as to the merits of this Rose, and regret having grown Roses for twenty-five years and for all that time, till two years ago, have missed its beauty in my garden. I think it must be variable, for I saw it in some public gardens this summer looking very pinched, though other Roses in the same bed were doing well; also a friend on seeing it here exclaimed: "That Gustav G——! Why, my blooms are not like that." It also does well in autumn. Any notes from amateurs on Roses which do well with them without special attention is interesting.—T. W., *Warwick*. P.S.—Since writing the above I have been wondering whether it might encourage some of your readers to follow our example, if I state how we started our Rose show. It happens that there are a goodly number of cousins in our family, and some years ago one cousin invited us all to bring eighteen Roses if possible. He provided about a dozen show boxes, which have been lent to others each year. It is quite an unpretentious affair. The chief event is the box of eighteen Roses of any kind. There are also several other classes, and the judge or judges are so broad-minded that each exhibitor generally receives some slight souvenir. One year over two hundred Roses were shown, and the number of guests has varied from thirty-five to sixty. One cousin, a farmer, grows wonderful blooms—I have never seen better growth anywhere—and, when able to exhibit, all others take a back seat. He has a few beds all of Roses; the others grow round the borders of the kitchen garden. The event serves to bring together relatives and friends who, under ordinary circumstances, would seldom meet.—T. W.

Standard Gardening Works.—The note on "Three Great British Works on Gardening," issue July 29, page 365, is misleading. "Philip Miller's Dictionary" is noteworthy as the first encyclopædic work on horticulture, but it was followed by many superior to it whose names now interest only antiquarians. "Loudon's Encyclopædia" was one of the least successful of his many works, and never was much more than a curiosity. It is now a desirable work as

a repository of information regarding the early history of gardening. "Nicholson's Dictionary" was projected as a commercial speculation; its bulk and cost make it prohibitive to the rank and file of gardeners. That its compilers should have found it financially a good speculation to swell out such a work with details of almost no use to the practical gardener proves the public interest in scientific horticulture. "Johnson's Gardener's Dictionary" has, I understand, had a much larger circulation than that of all three of these merely monumental works combined. It is the most convenient and, for its size, best encyclopædia of horticulture ever published. It was produced by a genuine horticulturist first-hand to meet the need of the mass for scientific horticulture. Had the compilers of "Nicholson" had the motives and knowledge of Dr. Johnson, they would have produced a very different work to that of the unwieldy dictionary. In beauty of typography and compendious design "Paxton's Botanical Dictionary" has never been surpassed, if equalled. "Mawe's Gardener," as a practical manual, held the field longer than any similar work ever has. It was finally displaced by "Thomson's Gardeners' Assistant," still a leading work; McIntosh's "Book of the Garden," consigned long since to undeserved oblivion; and many others. In the last twenty years there has been a crowd of new gardening works, few, if any, of which can hope for the immortality of Abercrombie, Loudon, Paxton and numerous others. There is no gardener without his bookshelf, large or small. I have repeatedly urged the publication of lists of standard or commendable gardening works. A full synopsis of all encyclopædic horticultural works ever published would require but little space and be a great boon to THE GARDEN readers. I have before me the first edition of "Alpine Flowers for English Gardens," by William Robinson, founder of THE GARDEN. This, in its later form of "The English Flower Garden," was one of the comparatively few epoch-making works on horticulture, and has enjoyed an immense popularity.—HURSTCOT.

Black Spot on Roses.—I have no doubt this disease has been brought to this country on imported plants of some of the so-called popular varieties raised in America. Although "spot" attacks many of the strong-growing Roses, it is the particular bane of the famous Rose American Beauty. Owing to its gigantic stems and enormous foliage (often making a perfect forest in a "Beauty" house), damp and moisture are often difficult to get rid of before closing the ventilators. When the nights are long and moisture is left on the foliage to dry during the night by pipe-heat, black spot is sure to make its almost immediate appearance. My impression is that the liability of American Beauty to spot is owing to its density of foliage and great height, all tending to conserve moisture. Overwatering of the benches, carelessness in ventilating, and anything promoting a stagnant atmosphere will cause a spread of the fungus spores if in the house. I have seen some advertised remedies tried, but with not much success. Picking off affected leaves and those that have fallen daily and burning them, and uprooting plants where the disease appears to have become chronic and doing likewise, help to check it. The application of powdered lime mixed with flowers of sulphur, applied with a distributing bellows or machine to the plants from the ground upward, is the most effective remedy I have seen tried. If a light

coating is put on at slow intervals, it is an effective check to the scourge, and appears to stop the spread of the spores. I have used the same for rust in a house containing Carnations, with excellent results. For Roses outdoors a well-drained site is of first importance, away from the vicinity of large trees and surrounding shrubs, where the Roses would have the benefit of a plentiful supply of air and sunshine all day, and which could reach the soil unobstructed. There is danger of the scourge overrunning the country and destroying all Roses if some measures are not taken. To eradicate black spot requires systematic and daily attention. It is uphill work, and can only be overcome by a combined effort.—W. G., *Kenmay, Aberdeenshire*.

Toads and Strawberries.—Yet another note on the subject. A local friend suggested the possibility that mice had caused the depredations, and as a sequel I have trapped five in as many days. But, alas! the steed is stolen, my berries gone; and, my only consolation, I may retain my toads, this year, anyway.—E. W. M., *Springfield, Theydon Bois, Essex*.

The "Daffodil Year Book."—The proposed discontinuance of the "Daffodil Year Book" of the Royal Horticultural Society is to the undersigned little short of a horticultural calamity. By the rank and file of amateur gardeners in America the golden sails of this loveliest fleet of flowers were but just hailed on the horizon, and now our binoculars, so to say, are snatched from us! The "Daffodil Year Book" has most truly made many things clear. Is it impossible to continue its publication this year as a leaflet, uniform in size with the issues we already have, and thus create at least a link between existing volumes and those for which one earnestly hopes in the future?—(Mrs.) FRANCIS KING, *Orchard House, Alma, Michigan*.

Bottling Pears.—I am, of course, very proud and pleased to see my method of fruit bottling reprinted in *THE GARDEN*, issue July 22, page 355 (with a testimonial, too!). Funnily enough, I have never bottled Pears nor Blackberries myself, but was intending to do so this year, and am happy to hear my method (or rather my mother's, for she it was who invented it for herself) is as successful with these also. It answers well for small, well-ripened Tomatoes, but Red Currants and Raspberries sometimes fail and ferment, as these fruits cannot be wiped, so I only bottle them when the fruit can be picked very clean—far away from motor dust—and quite certainly dry. I shall be glad if H. Droop will say whether the Pears were preserved whole, or pared and cut up like bought ones.—ANNE AMATEUR.

Cistus purpureus (true).—In 1894 I became acquainted with the Rev. W. Kingsley of South Kilvington, Yorkshire, who died a short time since, aged 101 years. He used to spend the winter in an old monastery somewhere in the South of Portugal, and brought back all sorts of Cistuses, which he grew in a greenhouse. The true *C. purpureus* was one of them. Twenty years ago I believe this Cistus was hardly to be had for love or money. I remember giving cuttings to Mr. Wolley-Dod and other friends, also to Kew Gardens. My first specimen lived for ten years, and died in the winter of 1903 after flowering freely at Christmas. Archdeacon Bree of Coventry was so delighted with *C. purpureus* that he has grown it largely ever since at Allesley Rectory, but has to protect it with glass screens

in the winter. At the present time he has nine fine bushes under a south wall. Another fine Cistus given me by Mr. Kingsley was what he called a pure white *C. ladaniferus*—I forget its name. I gave it to the Newry Nursery, but it does not now appear in their catalogue. Mr. Kingsley was a first-rate trout fisher, and when he was about eighty-five years of age I saw him dress a number of trout flies without the aid of spectacles.—E. CHARLES BUXTON.

Cypripedium Rothschildianum.—I have sent you some flowers and a photograph of *Cypripedium Rothschildianum*. The original plant was sent to me from Singapore in 1886; this was about the first plant of this Orchid to be introduced into this country. It was obtained in rather a peculiar way. A friend of mine asked some Chinamen if they could get any Orchid plants for him, whereupon they raided a missionary's garden and brought this plant and other very choice varieties the names of which I forget at the moment. The plant of *C. Rothschildianum*



THE SINGULAR-LOOKING CYPRIPEDIUM ROTHSCHILDIANUM FROM THE ORIGINAL PLANT COLLECTED IN SINGAPORE.

grew into a very fine specimen and produced twenty-six flower-spikes at one time, when it was awarded a certificate of merit by the Dundee Horticultural Association. It did not flower again for five years, until I broke up the plant into small pieces and potted them into 6-inch pots, with the result that they have flowered freely every year since.—J. MACHAR, *The Gardens, Fotheringham, Forfar*.

Variation in Ceanothus rigidus.—I was unaware until recently that this attractive Californian shrub is represented in gardens by at least two well-marked forms, which have been described and figured by Mr. T. A. Sprague (*Kew Bulletin*, 1915, page 379), where a history of the species is given. The original *Ceanothus rigidus* described by Nuttall in 1838, of which there is a type specimen from Monterey in the Kew Herbarium, has small orbicular or obovate-cuneate leaves, toothed in the upper half, and small clusters of deep purple-blue

flowers on short pedicels. This seems to have been introduced into cultivation by Hartweg in 1848, though Douglas and Coulter had found it in California many years before. This is now rare in cultivation, but I recently bought a plant of it at Messrs. Cheal's nursery at Crawley, which is now growing vigorously against a west wall in my garden. Specimens of this form, which is regarded as typical *C. rigidus*, have also been sent out by Miss E. Willmott under the name of *C. rigidus vera*. Another form which has been separated by Sprague as *var. pallens* may be known by its longer, more cuneate and more markedly toothed leaves, with paler flowers on longer pedicels. This appears to have been introduced by the Veitchian collector William Lobb in 1857, and is said to be commoner in cultivation than the plant described by Nuttall. There is a fine bush of the variety *pallens* on the wall of the herbaceous garden at Kew. The figure in the *Botanical Magazine*, t. 4664 (1852), represents the small-leaved form of *C. rigidus*, but the plant illustrated in "Paxton's Flower Garden," Vol. I., page 74, fig. 51, is somewhat nearer the variety *pallens*, indicating that the plants raised from Hartweg's seed showed considerable variation.—A. BRUCE JACKSON. [This note was accompanied by branches of two well-marked forms of this attractive shrub, the one common to gardens and the other with small cuneate leaves about one-quarter the size.—ED.]

Hints from an Old Gardening Journal.—In reading an old gardening journal of about 1850 I came across the two following hints which you may like to reproduce: (1) In digging early Potatoes replant any haulm that has even one tiny tuber attached. In four weeks a good supply of tubers may be obtained. Plant between the rows and simply hoe the earth over from the ridge. I give this for what it is worth, and am trying it myself. Knowing the extraordinary efforts of the Potato to reproduce itself, this may be yet another added to the five I already know of its methods, namely, by tuber, seed, cuttings, fruits on the stem, and small tubers thrown out by the big tuber in earth or sand in winter. Another writer in the same journal comments on the then very common plan of planting Potatoes in the autumn instead of spring. Certainly a bed of rogues left in last autumn has a very fine appearance now, and better than any other of my late sorts. The ground had greenstuff trenched into it in the winter, but the Potatoes, I conclude, must have been lower than the trench. I hear that one farmer in Lincolnshire plants his tubers a yard apart, and he dug twenty tons to the acre afterwards. This is told me by Mr. Bedford of University College, who saw it done. The other hint from the old journal (*Cottage Gardening*) was that some well-known man had been experimenting with a substitute for tea, and he found that the young leaves of Holly trees answered very well. They certainly are very astringent to the taste. Will someone experiment?—ALICE MARTINEAU, *Hurst Court, Hurst, Berks*.

FORTHCOMING EVENTS

August 15.—Royal Horticultural Society's Meeting and Exhibition at Vincent Square, Westminster.

August 17.—Royal Horticultural Society of Aberdeen Show (three days). Manchester and North of England Orchid Society's Show.

INTRODUCTION OF THE FLORISTS' AURICULA

MR. C. HARMAN PAYNE in *THE GARDEN* of August 5, page 378, without reference and speaking from memory, makes the interesting statement that Solomon Page's Champion in Auriculas is probably the oldest surviving florists' flower. The interest would be enhanced if the date of introduction were given, and the subject recalls some very interesting facts on the introduction of the florists' Auricula supplied by Mr. S. H. Perry, M.R.C.S., in *THE GARDEN* for January 11, 1902, from which the following entries are taken from the written records in the minutes of the Spalding Gentlemen's Society:

"April 22, 1725.—The secretary communicated to ye society a peep of an Auricula Ursi called 'Grand Paisant' of this size of a deep crimson and like V. W. H. with a yellow eye. There were seven upon ye truss, the largest was laid upon this paper, and the size and shape marked exactly."

April 7, 1726.—Mr. Mills brought with him a very curious and large Auricula, green striped, with dark red and yellow and a fine white eye; and the peeps of a great many other Auriculas very beautiful and now in blew in his potts.

N.B.—This fine flower thrives best in pots in a light earth mixed with sharp sea sand and not exposed either to the sun or rain from the time it begins to blew.

From ye observations of Mr. Everard, secretary Gentlemen's Society, a curious florist.

March 28, 1728.—Dr. Green brought an Auricula Ursi with a truss of forty-five peeps or flowers of a deep crimson colour, with a white eye well powdered.

May 1, 1729.—Mr. Rowland shewd the society a truss of an Auricula bearing thereon 107 peeps or flowers, the stalk very flat and broad.

April 22, 1736.—Dr. Green, secretary, shewd the society a pullett's egg, &c., also several peeps of Auricula Ursi limmed by him very neatly, and a stalk bearing six of the double yellow Auricula Ursi growing not on the topp together in a truss as usual but three one over against the other, and the largest at the summitt or end of ye stalk in the manner of spiked flowers.

April 5, 1739.—Dr. Green, a secretary of this society, shewd the society a light purple velvet coloured Auricula Ursi of his own raising from seed, having a very large white eye; one peep of three which were on the same stalk was of the circumference here under drawn round the extremitie of the same as laid down flat upon this paper 2 inches diameter.

Of this flower the learned Dr. John Rea in his 'Flora' says: 'Auricula Ursi (Beares Ears) are nobler kinds of Cowslips, bearing several flowers like them in form on the summitt of their stalk in what wee commonly call a truss.'

Rapin has overlooked this beautiful flower, but our own Cowley has done it justice in his third book of plants thus translated by N. Tat, Poet Laureate.

'Impudent fool! that first stil'd beauteous flowers

By a detested name the ears of bears;

Worthy himself of asses ears a pair

Fairer than Midas once was said to wear.'

May 10, 1739.—Dr. Green, secretary, shewd the society a curious lusus in a peep or flower of an Auricula called Potter's Glory of England, having from the middle of it another peep rising up, but reversed so that the stripes of that peep were on the outside of the leaves as those of the main peep were as usual on Auricula Ursis on the inside.

Note.—This peep or flower being dissected has two distinct seed-vessels standing laterally.

May 24, 1739.—(A dried flower of an Auricula is here pasted in the minute book. S. H. P.)—



THE OLD AURICULA GRAND PAISANT.
(From the records of the Spalding Gentlemen's Society.)

This is the lusus or peep of an Auricula Ursi, one within the other produced by Dr. Green, secretary of this society, the 10th of this month, commented on in the minutes."

These, however, are by no means the earliest records of the florists' Auricula, although they indicate exactly the stage that flower had reached in 1725. The exhibitors were obviously most observant in detail, and paid great attention to the show points of their flowers. The records also indicate the exceptionally keen spirit of friendly rivalry which prevailed among Auricula fanciers of those days. With reference to the much earlier records, it is interesting to note that Samuel Gilbert, son-in-law of John Rea, published his "Vade Mecum" in 1683, and therein includes a dozen sorts of Auricula. From the white they ranged through the usual colours and shades to the Black Imperial and the Black Emperor. Rea's "Florilege" treats of the Auricula also from the point of view of the florist. This book was published in 1665, eighteen years before the "Vade Mecum." His list contains a detailed description of The Fair Downham,

the finest purple with white eye then known, that "takes the name from this first owner, my very good friend Mr. John Downham, from whom many years since I had this and divers other flowers." This variety, it is interesting to relate, is considered the earliest of the florists' type.

"A GARDEN OF THE GODS"

BY EDWARD H. WOODALL.

NOW and again there are moments that repay one for all disappointments, and such a happy moment came to me the other day in the flower land of the Alps. I had made several fruitless excursions in quest of flower beauty and had failed, for the endless Fir woods and the too steep climbs up the mountains had brought nothing but fatigue in their train. So, one afternoon, taking a little local tram up the valley to a point where several valleys diverged, I noticed on the way a clearing in the woods where a little stream tinkled down among the rocks from the heights above, and the gleam of flowers sparkled through the undergrowth. Getting down at the next halt, made my way back, not attempting to climb the heights, but content to take what the woodland glade could give. Before long I came on what seemed to me one of the most ideal rock gardens imaginable. I much regret not having any book on the Savoy mountain flora, for I came across things new to me at any rate, and

so I cannot name them as I should, and must merely attempt to describe them.

In parentheses I should remark that in each new district one notices many forms of Roses or Campanulas that must have hybridised with each other, and produced a flora that is very distinct from a gardener's point of view, though to the eye of the botanist it is not worthy of a specific name. This was especially the case to-day. There were Roses of every shade between alpina and canina, some most delightful with little bouquets of Roses exactly like those sold on Alexandra Day and with Sweet Briar scent. There were others with glaucous leaves and deep purplish rose, long buds; there were Campanulas that belonged to our native Harebell type, but twice as big in flower and growth and deep rich purple in tone; and tier upon tier on the hillside were rows and groups of a most lovely hairy-mouthed Campanula that puzzled and charmed me particularly. Its stems rose from a flat rosette of green leaves to a height of 18 inches or more, often quite straight, with its large silver grey bells, grouped in threes mostly, on its

em; at other times, when in shade, it was more luxuriant and slightly branching towards the lower part of the stem. The segments recurved rather widely, showing the abundant growth of silvery filaments. Rising from a groundwork of varf Bilberry and large cushions of silvery antennaria dioica, these silvery grey bells made a wonderful harmony, and among them were any tufts of the silver and purple heads of nemone alpina and vivid green of baby Spruces that will grow up all too soon and choke the lower tract.

On the other and more sunny side of the streamlet were wide-spreading masses of Campanula pusilla, very deep in colour, and with it otus corniculatus, burnt to a rich orange colour in many places, and masses of wild Strawberries, fragrant with their rich red fruits, nearer the stream. At the great surprise was among the rocks, perched high on one was a group of the too abundant Willow-herb, but of an exquisite flesh salmon tint with bright red buds; below another of a surprisingly bright red; and, again, other shades of colour, but none that was far the type. Why should such a lovely variation and a number of varieties from the pe occur here, while not a single stem of the pe was within a hundred yards or more? Truly it was a "Garden of the Gods," and one could one's breath and thanked Heaven for it that there were no sacrilegious hands to destroy its airy beauty.

SPANISH IRISES

BY THE REV. JOSEPH JACOB.

HAVING flowered a small collection of these useful Irises this summer, a few notes on some of the varieties may be of interest to readers, although I fear, owing to the prohibition regulations that are now in force, it is extremely doubtful they will be procurable. The numbers grown

on British soil must be but very few in comparison with the hundreds of thousands produced every year in Holland; hence the majority who may wish to acquire them will, in all probability, be obliged to be contented with the garden equivalent of "bread and point."

Now that the newer but similar Dutch Irises are coming into vogue, it may be useful to record the difference in the time in which the two races bloom. Rembrandt may be taken to be a very typical example of these new ones. In my garden

this year it came into flower on June 4, whereas the earliest of the old Spanish did not open until June 17. This was Formosa, a dark blue with dark grey and orange falls. Thunderbolt, the magnificent tall deep purple and yellowish bronze, did not come into flower until June 23. This is a truly magnificent variety, and among Spanish Irises is the equivalent of that rich black corded silk of the quality that looks as if it would stand up by itself without the necessity of a wearer. Gold Cup was grown alongside of it. I have always heretofore been under the impression that the name was a synonym of Thunderbolt; but whether it was accident or something in the soil or its character, it gave one the impression of being a "rectified" form of that grand variety. The bronzy brown colouring on the falls was not

solid, but most distinctly splashed looking. In this it showed its affinity to the English Irises, as I believe it is impossible to prevent the great majority "breaking" when their time has come.

The most beautiful of the whites was undoubtedly King of the Whites. It was without any purple colouring in the lower part of the standards, such as is found in British Queen, and the falls were wide and charmingly frilled.

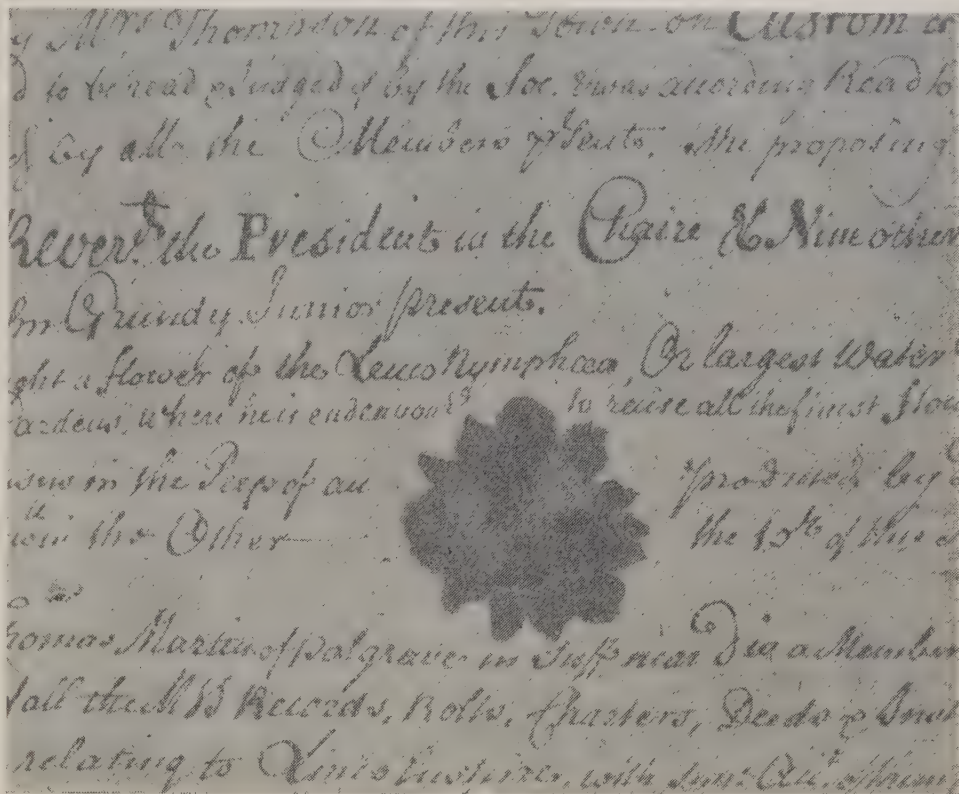
Of the pure yellows none was superior to Cajanus. Tall and fair to look upon, it is a fit

companion to those already mentioned. Walter T. Ware is a pretty deep primrose self, and Leander a good dark shade of yellow. Of what may be termed the "bicolor yellows," La Citronnière appealed to me very much on account of its delicate colouring. The standards are a pure primrose, while the falls are a decided lemon with a small orange blotch. At the other end of the yellow scale I would place the bronze and orange Reconnaissance. It attracts because of its weird and curious colouring, although it is a trifle dull when used as a border plant in isolated clumps. It is most effective in vases, and should be grown in such positions where its bent may be satisfied. A variety that came as Xerxes seemed to be identical. I grieve to say that this was not the only instance of a duplication of names, since I failed to see any distinction between Solfatare and Cambridge Blue. Anyhow, Solfatare is a splendid variety after the style of Formosa, and valuable for succession, as it flowers, according to my time table, just a week later.

Unique, with deep blue standards and orange and white falls, is one of the most distinct on account of its violent but harmonious contrast of colour.

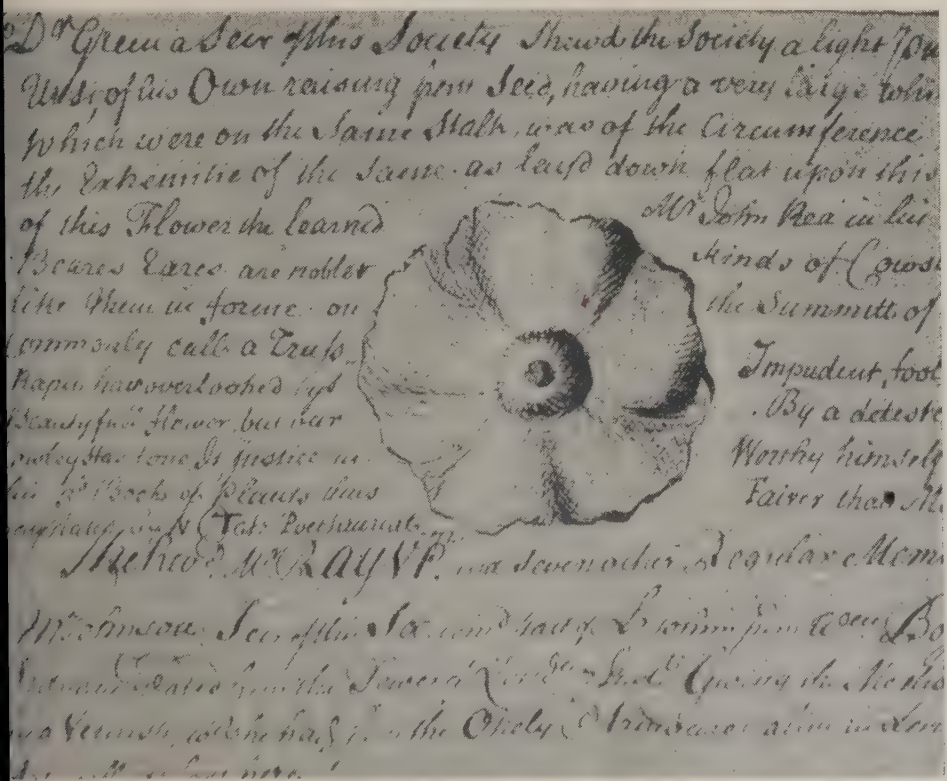
Darling, which has a smaller type of flower and a more slender stem than any so far mentioned, is a lovely deep blue, the standards being of a darker shade than the falls. It comes in my estimation nearest in the general appearance of its blooms to the never-to-be-surpassed reticulata. A blue reticulata on stilts is not half a bad fanciful description.

Of the delightful mauves or lavenders, of which the old Louise is the best known, Beauty, with lavender standards and the palest of mauve—almost white, splashed mauve—falls, is exceedingly nice. But one that I did not grow myself, but which I saw at Holland House Show on the stand of Messrs. Bath of Wisbech, I am disposed to put at the top of the class. This is Souvenir. Its soft, delicious dove colour, with the silvery purple flushing of the standards, marks it out as one which, should never be absent from the smallest collection.



A CURIOUS AURICULA SEEDLING.

(From the records of the Spalding Gentlemen's Society.)



LIGHT PURPLE AURICULA.

(From the records of the Spalding Gentlemen's Society.)

FLAG IRISES

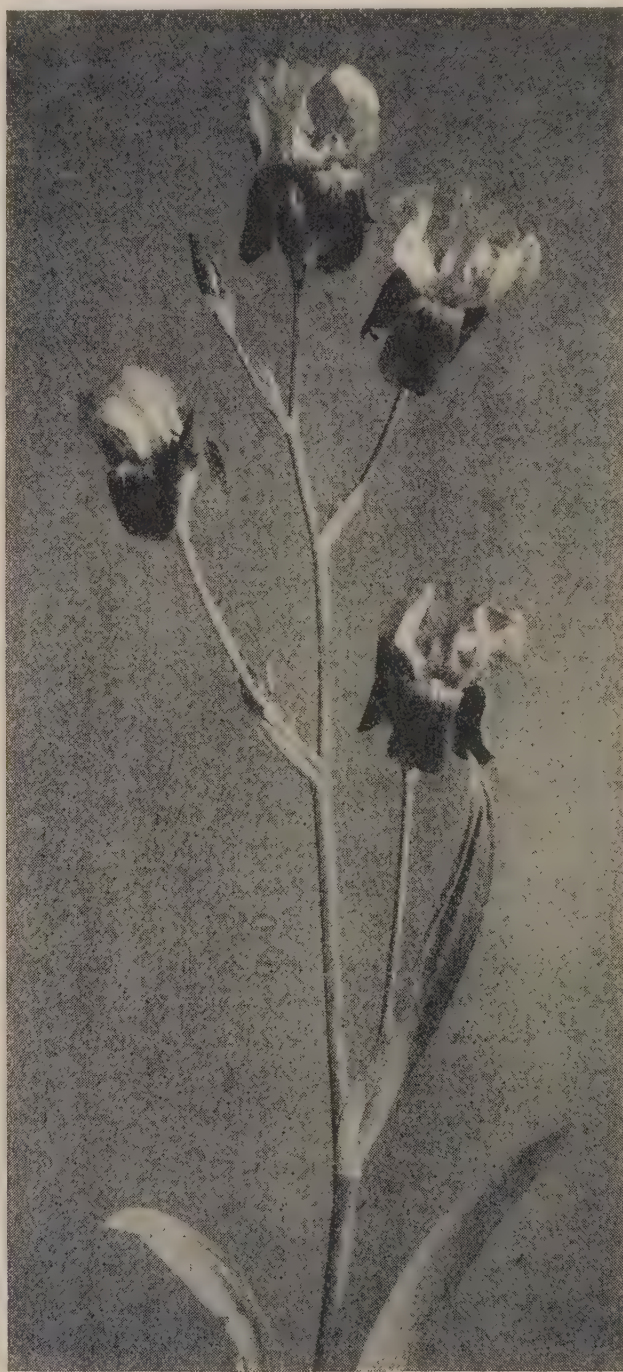
By R. W. WALLACE.

MR. E. A. BUNYARD'S interesting notes on these on page 342, issue July 15, invites one to write further on the subject. Much attention has been paid to this fascinating family of recent years, and large numbers of new forms are in cultivation. In writing of Irises I always like to refer to the late Sir Michael Foster, who was so enthusiastic in their culture and to whom the raising of new forms and hybrids was his chief delight. It was my fortune for many years to visit Shelford in May and June when the garden was full of masses of Iris in every direction, also bold clumps of *Eremurus robustus* standing clearly outlined against the dark Yew hedges. These and many other pictures in the garden are a treasured memory, but, above all, the Professor himself, the keen, intelligent and kind face, the old brown velvet jacket, the inevitable pipe, the quite chuckle when he showed you one of his treasures flowering for the first time, such as a *Susiana* × *iberica* seedling or some other wonderful creation; then one felt the presence of the master mind. All these memories come back when sitting down to write a few notes on this wonderful family.



MR. YELD'S NEPTUNE.

The introduction of *Iris Trojana* (or, as it was once called, *asiatica*) gave us a new group of garden forms the value of which has not yet been fully demonstrated. *Trojana* is a plant of vigorous constitution with upright spikes, 4 feet high, much branched, the lowest branch sometimes springing from near the bottom, so much so that we have panicles of flowers instead of spikes. This species was largely used by Sir Michael in his later years in developing new garden forms, and we now have grand garden plants in *Lady Foster*, *Crusader*, *Kashmir White*, *Ringdove* and *Shalimar*. All of these have tall, branching spikes, large flowers and stout, erect



THE GIANT ALCAZAR.

stems (I have seen on *Ringdove* twenty-one flowers and buds). Messrs. Vilmorin have distributed many fine new forms during recent years, one of them being *Alcazar*, with tall, branching stems and very large flowers, light bluish violet with dark purple falls. It is literally a giant, and more pronounced on account of its early flowering. *Oriflamme*, referred to by Mr. Bunyard, is certainly the finest Iris in the so-called *Germanica* group; its immense pale blue standards and darker falls are beautiful beyond description. *I. germanica Amas* is not so good, but this and *Kharpur* are essential in the May-flowering group. Mr. Bunyard is, I think, looking for trouble when



LADY FOSTER, A GOOD GARDEN IRIS.

he speaks of *pallida* *Princess Beatrice* and the Rev. W. Wilks as being distinct. Now, what is his *Princess Beatrice*? If it is the same as Mr. Barr's *Princess Beatrice* (he gave the name), well, then they are both identical to what I have known all my life as *pallida dalmatica*, and I think I am betraying no secret in mentioning that this opinion was upheld at the Iris trial this year and last.

I do not know Mr. Bunyard's *Rose Queen*, but there are many rose pink forms on the way including some new American seedlings. Of new varieties in cultivation, the following are first class; *Ed. Michel* is a grand wine red *pallida*, a real aristocrat; *Eldorado*, a striking combination of yellow, bronze and heliotrope defying description; *Goldcrest* (Dykes), a *Cengialtii* cross, tall upright stems, bright violet blue, a self colour with as many as five flowers out at once; *Isoline* a very large lilac pink and purplish old rose quite a unique variety; *Lohengrin* and *Rhein Nixe*, Hun introductions of beauty which, being flowers, can only reflect their loveliness. *Lord of June*, *Neptune* and *Asia* are of Mr. Yeld's creating, large flowered, branching, tall spikes quite away from the old forms.

As already indicated, Irises are undergoing a period of great development, and the next few years will show a still greater interest in these fine garden plants. I fancy the outcome of the

recent Iris trial by the Royal Horticultural Society will serve a great need and be only an indication and a forerunner of much good work that will be forthcoming from the new movement at Wisley.

FLOWERING PLANTS IN SHADY PLACES

WE should be grateful to any reader who would suggest the names of suitable flowering plants in addition to those mentioned for growing on the immediate outskirts of the woods at Pain's Hill, Cobham, Surrey. Plants with bright flowers of tall or medium height are required. Anchusas, Solomon's Seal, Mulleins, Flag Irises and Evening Primroses have been tried without success. It is too dry for the common Primrose, nor is this plant tall enough for the purpose. Welsh Poppies (*Meconopsis cambrica*) and Campanulas *macrantha*, *persicifolia* and *alliarifolia* are being tried, but *Hypericum*s and St. John's Wort are hardly tall enough. The site is at the top of a hill, the soil dry and more or less impoverished by the overhanging Cedars, Pines and Beeches. However, Foxgloves are quite at home, as may be gathered from the accompanying illustration prepared from a photograph taken in July.

GENTIAN IN THE GRASS

By H. STUART THOMPSON, F.L.S.

NO one who has seen this beautiful but rather difficult plant growing in the Alps, in Northern England or on the West Coast of Ireland would feel shy of trying it in short, fine grass or among certain other small plants, especially on limestone soil. The root and stems are very slender, and only those who have tried know how difficult it is to get good, compact, well-established plants, even among the Alps. It sometimes does if planted on a half-buried sod of turf, grass side down. In my "Alpine Plants of Europe," 1911, I said, "It seems to like grass, and indeed it is better to plant it either in a fine, short grass or mixed with other small plants, which tend to keep it from getting dried up. In Nature it sometimes forms beautiful pictures when growing with and through a mass of *Dryas*." In Mr. Lloyd Praeger's admirable little "Tourist's Flora of the West of Ireland" a picture of *G. verna* on the sand-hills of County Clare is shown; and the author tells us the flora of the close sward in which the Gentian forms numerous patches includes much *Asperula cynanchica*, *Galium verum*,

Thymus Serpyllum and *Habenaria intacta*. *G. bavarica* is almost impossible to grow in this country; but *G. pyrenaica*, which frequents similar damp, grassy places in the Eastern Pyrenees, may be less difficult, and has been known to do in damp peat and sand in full sun. When once established I believe it would grow in short grass in open, damp places—admittedly an unusual combination in this country, except on some hills and commons. *G. pyrenaica* adorns some of the mountain rills and pastures of the Eastern Pyrenees, with its trailing leafy shoots and rich purple fringed blossoms, in a manner never to be forgotten.

Like various other Pyrenean plants it skips most of France and Switzerland and reappears in the Carpathians and in Western Asia. Mr. James Backhouse told me recently he has grown it successfully for three years, that it has grown steadily and this year flowered gloriously.

As for what is commonly called in this country *G. acaulis*, it would be interesting to know if it has succeeded here in grass, for everyone knows what strange likes and dislikes it has, and how it may flourish in one garden and be a failure in the next. The very handsome *G. asclepiadea* will grow in coarser grass, especially on somewhat stony, limestone ground,



FOXGLOVES ON THE FRINGE OF THE WOODLAND IN A SURREY GARDEN.

NOTES FROM MYDDELTON HOUSE GARDEN

BY E. A. BOWLES, M.A., F.L.S.

DURING the week I have asked visitors to the garden what they thought the most striking plant in flower now, and all of them have selected *Allium giganteum*. So, though I cannot make a sketch of its large globular heads of innumerable mauve flowers, I must give it the honoured place at the head of my notes.

It means a good deal to be so unanimously chosen as first, for many very beautiful plants are making a good show. A group of over a score of fine tall stems of *Lilium testaceum* is not to be despised, and is especially charming in having for neighbour a large patch of the pale salmon form of *Lychnis chalcedonica* that I felt sure when I planted it would be pleasing with the apricots and cream of the Lily. I now feel I want a plant or two of the old scarlet form of the *Lychnis* among them to make the blend of shades perfect. Then, again, close by is a long stretch of *Alstroemeria aurantiaca*, mixed by accident, but very happily so, with *A. aurea*. *Campanula lactiflora*, of every shade from pure white to a deep lilac that is almost a blue, is making a glorious display; there is a fine spike of bloom on one of the best of the Neapolitan hybrid *Yuccas*, *Vittorio Emmanuele* by name; *Cytisus æthnensis* is a shower of gold and scenting the air with fragrance; yet everyone prefers the Garlic.

Of course, it is a rare one and far too seldom seen, and that alone lends a plant charm, but it also stands 6 feet high, with straight and slender stem bearing up the nearly spherical head that is 6 inches in diameter. They are slightly flattened at the lower poll, but almost perfect spheres. Seven of them spring up from a fairly high ledge on the sunniest bank of the rock garden and catch one's eye from a distance, being so utterly unlike all their neighbours. Unfortunately, their handsome grey-green leaves always wither before the flowers are open, and are then so unsightly that they are best removed. This Emperor of all the Onions was collected in Central Asia about thirty years ago, but it is not easy to procure. My bulbs came from Mr. van Tubergen, but I have had *Allium Rosenbachianum*, a smaller and earlier-flowering species, supplied to me for *A. giganteum*

from other nurseries. My plants have never as yet formed good seeds, so the increase is rather slow, as a bulb that can produce 6 feet of scape and so many hundreds of flowers cannot

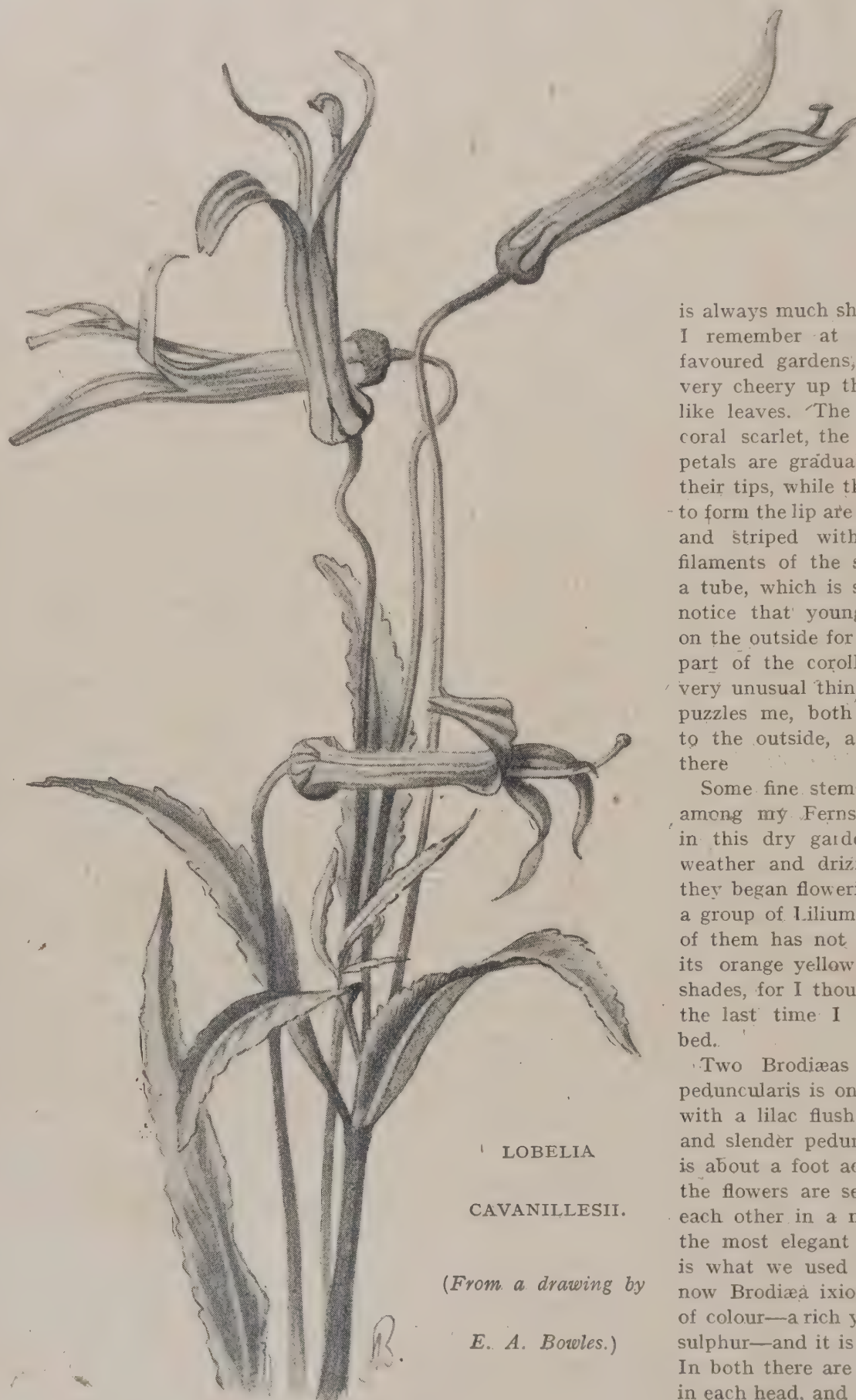
refers us to a plate (t. 3600) in the *Botanical Magazine*. There, however, I find an unattractive flower of a dull yellow shaded with orange, and only half the length of my brilliantly coloured one. The figure in Sweet's "British Flower Garden" of *Siphocampylus bicolor*, which is now regarded as the typical *Lobelia laxiflora*, is like my plant in colour, but again shows flowers half the length of mine, and with wide, coarse leaves. However, the "Kew Hand List" upholds the name *L. Cavanillesii*, but refers to the *Botanical Magazine's* dingy plant. Anyway, I prefer my plant to those pictured, and shall stick to the old name until someone shows me good cause to change it. I grow it on a dry ledge of the rock garden, and it

is always much shorter than the luxuriant clumps I remember at Glasnevin and in other well-favoured gardens, but it flowers well and looks very cheery up there among its narrow, Willow-like leaves. The outside of the tube is a fine coral scarlet, the two free and slightly twisted petals are gradually shaded to a soft orange at their tips, while the three petals which are united to form the lip are bright yellow in a young flower and striped with orange in older ones. The filaments of the stamens are combined to form a tube, which is scarlet like the corolla tube. I notice that young flowers are wet with honey on the outside for about half an inch of the lower part of the corolla tube, which seems to me a very unusual thing in a tubular flower, and quite puzzles me, both as to how the honey escapes to the outside, and what use it can serve out there.

Some fine stems of *Meconopsis Wallichii* arise among my Ferns, and are happier than usual in this dry garden, owing to the dull, cloudy weather and drizzling rains we have had since they began flowering. I am disappointed in that a group of *Lilium Hansonii* growing just in front of them has not lasted long enough to contrast its orange yellow flowers with their pale blue shades, for I thought they flowered together here the last time I had the blue Poppies in that bed.

Two *Brodiaëas* are charming just now. *B. peduncularis* is one, and has waxy, white flowers with a lilac flush on them, borne on very long and slender peduncles, so that a head of blooms is about a foot across in a strong specimen, and the flowers are separated some few inches from each other in a manner that makes this one of the most elegant of bulbous plants. The other is what we used to call *Calliprora flava*, but is now *Brodiaëa ixioides*. I have it in two shades of colour—a rich yellow and a very pleasing pale sulphur—and it is hard to say which is the better. In both there are about a score of starry flowers in each head, and a line of bright green runs down the centre of each segment of the stars, giving them a delightful finish. These two species of *Brodiaëa* seem very easily pleased and thoroughly reliable, for it is many years since I have replanted or paid any other cultural attentions to my clumps.

Dianella cærulea has flowered freely in the Peach-house border. Its pale blue flowers are borne in light branching heads above deep green



LOBELIA

CAVANILLESII.

(From a drawing by

E. A. Bowles.)

be expected to store up much spare nutriment with which to supply offsets.

I have drawn an old favourite of mine, the scarlet and yellow flowered *Lobelia* that I have grown for the last twenty years as *Lobelia Cavanillesii*. I find that the "Index Kewensis" makes it *L. laxiflora*, and "Nicholson's Dictionary" gives it as the variety *angustifolia* of this and

Iris-like foliage, and are shaped like miniature Turk's-cap Lilies; but I am sorry to see the cold, dull weather, or some other cause, has prevented their setting much fruit, and it is only here and there that I shall get the wonderfully coloured berries that are the chief charm of the plant. A plant I keep in a cool house in a pot always behaves well in this respect, and just now is a fine sight with its many pendent berries of various blue shades from a greyish lilac in the immature condition to a rich amethyst purple in fully ripened fruits.

Why does one so seldom see the brilliant little single Carnation called Grenadine? It is a gem for the rock garden, neat in habit, very free and generous with its flowers—almost flowering itself to death, in fact—and, in the only form I have, of a most glorious fiery scarlet, though I have heard that there are other colours known of this race. In habit it looks more like a large *Dianthus cæsius* than a small Carnation. Mr. Hayward of Clacton-on-Sea has sent me another charming little *Dianthus* for the rock garden, but it must not be planted near Grenadine, for its flowers are of a soft warm rose colour that would be killed by its glowing scarlet. He calls it Rosalind and it is semi-double, with two ranks of petals, and they are arranged in a very neat alternating fashion that gives it a most delightful outline unlike that of any other double *Dianthus* I know, and it further pleases me by the way in which it holds its flowers stiffly upright.

SUMMER FEEDING

THE object of summer feeding is to give plants food in a readily available form in order to stimulate them in the bearing of leaf, flower or fruit. Pot plants need stimulants more than outdoor plants as a general rule, for the pots become full of roots and the soil is exhausted. It is necessary, however, to be more careful in giving food to pot plants than to plants growing in the garden, for in the limited space of the pot the roots are easily injured.

Such manures as nitrate of soda encourage leaf; so if the amateur wishes flowers he must not rely on nitrate of soda, nor must he use it more than very occasionally, or his plants will run to leaf. Superphosphate and potash manures are good for encouraging flowers and fruit, but they will only do harm if given too strong. Nitrate of soda, sulphate of ammonia and other like artificials are extremely useful for hastening on the growth of "leaf-bearing" vegetables such as Cabbages, Lettuces, Endive and Spinach.

In applying fertilisers or liquid manure, do not give them when the soil is dry. Hoe the soil up well in the case of outdoor plants, &c., and water; then give the food. This prevents the roots being injured. Of course, keep the liquid off the foliage; if any gets splashed on to the leaves of the plants, wash it off at once with clear water. The time at which it is most advantageous to give food is a matter of opinion; some say in the evening, others in the early morning.

What to Give.—The best general liquid manure is made by putting about a peck of fresh horse-manure and a quarter of a peck of soot into a 36-gallon barrel of water and allowing it to stand some days. The manure and soot can be put into a

coarse bag, and the bag suspended in the barrel or put into the water direct. The liquid is drawn off and diluted with water till nearly clear. Some people favour the use of house slops. If excess of soapy water can be kept out, they are good; but if not they are apt, I find, to make the soil go sour. It is preferable to dilute them with clear water rather than with soapy water, and remember they are very strong, so dilute considerably. Liquid manure can also be made by putting a peck or so of sheep-manure, cow-manure or pig-manure and a quarter of a peck of soot into the barrel as before described and diluting with water. These last are good for feeding Tomatoes, Cucumbers and Marrows. In the artificial section I must mention proprietary fertilisers. These

are most useful if applied in accordance with the directions on the packages. Nitrate of soda can be used at the rate of half an ounce to an ounce to the gallon of water, as also can sulphate of ammonia. An ounce per gallon distributed over about a square yard of soil is about right for vegetables; for flowers less should be used, or the liquid distributed over about twice that area. Sulphate of potash and superphosphate are not leaf producers so much as the above. Their use tends to produce more flowers or fruits, or, in the case of Peas and Beans, superphosphate increases the production of pods. The first can be used at the strength of half an ounce or less per gallon, and superphosphate half an ounce to an ounce per gallon. Nitrate of potash (if available) can be used for the same

purpose. It is a quick-acting nitrogenous fertiliser, and should be used at the rate of about a quarter of an ounce per gallon. Dried blood can also be used, especially for feeding Tomatoes, &c. Apply at the rate of half an ounce per gallon. Guano is a fine all-round fertiliser, containing much readily available plant food. Use at the rate of half an ounce to an ounce per gallon. When summer feeding is commenced, use the artificials at about half the strength advised, gradually increasing the feeds till the full strength is reached. Artificials should be interchanged with liquid animal manures. Very good results are obtained by doing this, and "sickness" is avoided.

Wetwood, Ecclesall, Sheffield. E. T. ELLIS.

NEW AND RARE PLANTS

AWARDS OF MERIT.

Gladiolus Wraith.—A primulinus hybrid very prettily freckled and striped with red and salmon.

Gladiolus Phyllis Kelway.—This also shows the primulinus influence, the large flowers being of an exceptional tone of pure yellow. One of the finest we have seen. These were from Messrs. Kelway and Son, Langport, Somerset.

Lomatia pinnatifida.—The members of this genus are most usually employed as foliage plants, for which purpose their elegant habit is admirably adapted. That named is somewhat rare, the flowering sprays shown rendering it of considerable



ONE OF THE EASIEST LILIES TO GROW, LILIUM HANSONII, AT MYDDELTON HOUSE GARDEN.

interest. The red and yellow flowers are produced in pedicellate pairs in short axillary racemes. From the Donard Nursery Company, Newcastle, County Down.

Astilbe Gloria.—The richest red-coloured variety we have seen, the inflorescences unusually densely flowered. Should make a fine market pot plant. Exhibited by Mr. G. W. Miller, Clarkson Nurseries, Wisbech.

Delphinium Mrs. H. Kaye.—This elegant-habited and distinct variety appeared to attract everybody, as much, perhaps, by reason of its somewhat lax spikes as by its good colouring. Large individually, the solitary semi-double flowers, well disposed on 3-inch-long pedicels,

give the variety a character of its own. The sepals, of violet blue tone, are in contrast with the reddish violet petals. The variety was well shown by Mr. W. Wells, jun., Merstham.

Lælio-Cattleya Maqueda (L.-C. George Woodhams × L.-C. Lord Rothschild).—Sepals and petals rosy mauve, the deep crimson lip gold lined at the throat. From Messrs. Armstrong and Brown, Tunbridge Wells.

Lælio-Cattleya General Brusiloff (L.-C. callistoglossa × L.-C. bletchleyensis).—In this the sepals and petals are rosy red in colour, which in contrast with the almost self crimson lip renders the variety very distinct. From Messrs. Charlesworth and Co., Hayward's Heath.

Red Currant Laxton's Perfection.—A remarkable novelty in every way. Essentially a dessert Currant of the highest excellence, it is equally valuable for culinary purposes, while indispensable to the exhibitor. The brilliant crimson scarlet fruits, a score or more on a bunch, are of the largest size and command attention at a glance.

Plum Early Laxton.—The result of crossing Rivers' Early Prolific and Fraser's Early Yellow, the new-comer, while of larger size, is also a gain in early fruiting. Early Prolific, grown under similar conditions, was quite green and hard, the fruits of Early Laxton, of golden hue, being flushed with red. Stewed fruits were also on view. These two fruit novelties came from Messrs. Laxton Brothers, Bedford.

The foregoing novelties were before the Royal Horticultural Society on August 1, when the awards were made.

PERPETUAL MALMAISON CARNATION MRS. MYLES KENNEDY

It does not seem many years ago since the Perpetual Carnation which really flowered all the year round was regarded somewhat as a myth. To-day, the grower of Perpetual Carnations can calculate that, after he has cut his flower, in five months another bloom will be produced from the same shoot.

The same process is taking place with the Perpetual Malmaison. People are no longer satisfied with one crop of flowers each year, and evolution, careful crossing and selection, is creating another race which flowers at all seasons of the year. The variety in question, Mrs. Myles Kennedy, is the first in the salmon pink colour. It was raised by Messrs. Stuart Low and Co., Bush Hill Park, and received the award of merit from the Perpetual-Flowering Carnation Society when exhibited by Messrs. Low at the Chelsea Show this year. The colour is one shade deeper than Princess of Wales, and the flowers have better guard petals and sounder calyces than that popular variety. It is very sweetly perfumed; probably no other Carnation excels it in this respect. This is a point all breeders should work for in evolution.

The habit very closely resembles a strong-growing Perpetual Carnation, with handsome, curly, glaucous foliage. The accompanying illustration clearly demonstrates the perpetual-flowering habit. In addition to the flowers, shoots running off to bud are to be observed, the lower shoots at the bottom of the illustration being those which will produce flowers later still.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

Black Currants.—When all the fruit has been picked, most of the old fruiting wood can be removed to allow the young growths to be thoroughly ripened. If the trees have produced a lot of the latter, they will require thinning, so that both light and air can penetrate through the bushes. Varieties that are inferior should be duly marked and uprooted to make room for better kinds.

The Fruit-Room.—This ought now to be prepared for the autumn by giving a thorough cleansing. The stages should be washed and the

are not so liable to run to seed, and, moreover, they often stand a hard winter better than those sown early in the season.

Late Peas.—These should now be growing freely, and if the weather is dry, copious supplies of water will be necessary. The sides of the rows may be mulched with short manure, half-decayed leaves, or lawn mowings, all of which make excellent mulching materials.

The Flower Garden.

Lilium candidum.—When this favourite Lily is growing and flowering freely, no disturbance at the base should be permitted; but if the plants are not thriving, then they must be lifted and replanted in a fresh part of the border. August is the best month to carry out such work, as the bulbs are almost dormant at this period.

The Rock Garden.—Many of the rock garden subjects may be propagated at this season either from cuttings or by division. Hand-lights or cold frames are advised for the cuttings, which should be placed in sandy soil, and then kept sprayed and shaded from strong sunlight until rooted. At this stage they may either be potted off singly or transplanted in another cold frame. The various *Dianthi* may be increased by cuttings, also Rock Roses, the beautiful *Lithospermum prostratum*, *Campanulas* and many others. A rock garden requires a lot of attention, not only in keeping it clear of weeds and dead leaves, but in seeing that each plant is kept to its allotted space and not allowed to overrun its neighbour, which in all probability will be a choicer and rarer plant. Numerous plants are lost in this way.

Plants Under Glass.

Salvias.—Cuttings that were inserted late have made considerable progress and are ready for their flowering pots. If furnished with a fair number of side shoots, it is not advisable to pinch them again.

Hippeastrums.—Those that started early have completed their growth, and should be dried off gradually. Later batches must be encouraged to grow freely during the next few weeks.

Fruit Under Glass.

Late Muscat Grapes.—It will be necessary to expose the bunches to the light to get them properly ripened. Lateral growth must be removed from time to time, but this ought not to be overdone, or the roots will become less active. While the berries are swelling, keep the roots well supplied with water.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)
Castleford, Chepstow, Gloucestershire.



THE PERPETUAL-FLOWERING MALMAISON
MRS. MYLES KENNEDY.

walls whitened with lime, while free ventilation must be given to render the atmosphere sweet.

The Kitchen Garden.

Mushrooms.—These are always appreciated, and, where it is possible, the materials for a bed ought now to be prepared with a view to an autumn supply. The horse-manure should be collected daily, and then placed in a dry, open shed and turned every two or three days. When all the rank heat has passed off, the manure can be taken to the Mushroom-house or shed and made into a bed which will be 18 inches or 2 feet deep when completed. In a day or two it should be rammed tightly together, and directly the temperature of the bed is about 80°, it may be spawned. The bricks of spawn must be broken up and the pieces inserted an inch deep. Cover the surface with fine loam, and, after making it quite firm, a layer of straw will complete the work.

Cabbage.—Another sowing of Cabbage seed should be made. It sometimes happens that plants from this sowing give the best results. They

FOR NORTHERN GARDENS.

The Kitchen Garden.

Artichokes.—The tops should be pinched out of the Jerusalem Artichokes at about 5 feet high. This in no way affects the crop, and has the advantage of making them less liable to damage by high winds.

Lettuces.—A sowing of one of the hardier varieties should now be made, such as Bath Cos, Hammersmith or Stansfield Park. This with a further sowing made about a fortnight hence should meet the requirements of most establishments.

Herbs.—Where Sweet Basil is regularly used, several sowings should be made throughout the season, as it very soon gets out of condition. Any further batches required should now be given a little heat to germinate. Weekly sowings of Mustard and Cress will now be the better for the protection afforded by a cold frame.

Cauliflowers.—The latest batches of these should now be planted out. If an early maturing variety be used, it will furnish fine, small, fresh heads towards the end of the season. In the quarters ready for cutting there is usually a glut about this time, but the heads may be kept fresh and of good colour for a few days longer if some of the leaves are bent over to protect them from the sun. If this is done at intervals, it is wonderful how many may be saved from going to waste.

The large autumn sorts should be given a final stimulant in the shape of liquid farmyard manure or artificial fertiliser, which will materially increase the size of the heads. Autumn Mammoth is a very reliable sort and produces immense heads of the finest quality.

Cucumbers.—A sowing may now be made, which should carry over the supply into next year. For this purpose a low-roofed structure and a good command of fire-heat are necessary. Lockie's Perfection retains its reputation as one of the most reliable for general purposes.

The Hardy Fruit Garden.

Strawberries.—These are later with us than has been the case for many years, the first coloured fruits being seen on July 20. As soon as all the fruit has been gathered, no time should be lost in clearing away all runners from those plants intended for fruiting next season. Run the hoe between the lines, and leave all tidy and ready for a mulching of manure at the first convenient opportunity. The practice of digging between the lines is seldom of advantage, and should not be adopted, especially on light land. Strawberries are seldom profitable if cropped beyond three seasons, and in many cases, as in our own, they are only cropped twice; and when a regular rotation of planting is kept up, a portion is destroyed every year, this being done as soon as all the fruits are gathered.

Brambles.—These, as well as the Loganberry, are now making rank growth, which, if not thinned out, would soon smother everything in the vicinity. Only a sufficient number of shoots should be retained for providing next year's crop, all the others being cut out at the base. The selected growths should be temporarily fastened to the supports in such a way as to get the full benefit of the sun without unduly shading the present season's crop.

The Flower Garden.

Weed Killers.—The present is a suitable time to apply weed killers to paths and drives. A quantity of wind-blown seeds of grass, &c., usually appear about this season and render the paths green and untidy for the rest of the season. An application, therefore, if put on when the ground is moist but not wet, will save much labour in hoeing and weeding. If weed killers are used regularly it will not be necessary to apply them annually to the same walks, unless, of course, much seeding is allowed in close proximity. Do not use it near Box or other live edgings, in case a sudden shower should flood much of the poison to the roots and destroy them.

Plants Under Glass.

Cyclamen.—Sow seeds of Cyclamen this month for flowering in small pots next spring. They take a considerable time to germinate. When well up they should be pricked off singly in 2½-inch pots and kept near the glass in an intermediate house or pit.

Chrysanthemums.—These are now making good growth, and the pots being filled with roots, judicious feeding should be practised. Keep them carefully tied to their supports, or a high wind may damage them severely. Buds will soon be forming, and disbudding will demand close attention. For those unacquainted with the timing of the buds of the numerous varieties, reference should be made to one of the publications by experts.

Bouvardias.—The final pinching of these should be done about this time. Withhold the feeding until fresh growth takes place, when it may be resumed and continued until the plants are removed from the cold frames to their flowering quarters.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

BRITISH-GROWN BULBS

CONFERENCE AND EXHIBITION

A CONFERENCE of great importance and exceptional interest was held at the Royal Horticultural Society's fortnightly meeting on August 1. Its object was to bring to the public notice that thoroughly good bulbs of almost all kinds can be grown in Britain quite as well as in Holland or other countries. On the same day, thanks to the foresight of our friend and contributor, the Rev. Joseph Jacob, an exhibition of British-grown bulbs was held in the society's hall, and the combined effort proved to be a very great success. Whatever doubt there may have been in the minds of those present as to the possibilities of bulb-growing in this country must have been removed, for

best-known varieties which fill our florists' shops in spring were raised by English hybridisers. Emperor, Empress, Horsfieldii and Barrii conspicuous are household names. They are, of course, largely cultivated in Holland; nevertheless, British supplies are great and are grown all over the country. With regard to Tulips, especially May-flowering, Darwin and so-called Cottage Tulips, Mr. Barr referred to the vast fields to be seen in bloom in May both in the East and West of England, while in Ireland they are grown with great success. Although the English-grown Tulip bulb may not have the bright appearance of the Dutch grown, and may not perhaps be so large, the flowering results are certainly better. Mr. Barr said that he had



COLLECTING BULBS ON THE FLORAL FARMS, WISBECH.

the exhibits of British-grown bulbs afforded a pleasing example of the suitability of our soils and climate for producing crops of many kinds of bulbs which, up to the present season, we have imported so largely from Holland. The importance of this new home industry is greatly enhanced by reason of the fact that the Government has quite recently forbidden any shipping being used for the importation of flower bulbs.

The conference was presided over by Sir Albert Rollit, supported by the Rev. W. Wilks, secretary of the Royal Horticultural Society, and Mr. W. Cuthbertson, representing the Horticultural Trades Association. The discussion was opened by Mr. Arthur W. Sutton, who drew attention to the great possibilities of this industry in suitable districts, such as Lincolnshire, Anglesey, and certain parts of Ireland. Mr. P. R. Barr, who has spent considerable time in the bulb nurseries of Holland, was able to make many interesting comparisons. The Daffodil, he said, we may justly claim as an English flower. The

noticed the difference for many years in their nurseries, where imported Dutch and English grown Tulips had been planted side by side. The English bulbs had made slightly taller growth, bloomed earlier and produced larger flowers. Other bulbs and bulb-like flowers which grow well in England are Gladioli, Scillas, Muscari, Anemones, Ranunculuses, Ixias (in Guernsey and Ireland), Montbretias and Lilies, with the exception of Japanese and Indian species. Bulbous Irises, Crocuses and Scilla sibirica can be successfully grown here, but the Dutch cultures are so large and worked on so economical a scale that Holland is able to beat us in price. Mr. Barr was of the opinion that we shall never be able to compete with Holland in growing Hyacinths, except in very few parts of the country, owing to unsuitable soil conditions; but this view was not supported by all the other growers.

Mr. A. W. White, who represented a large firm of wholesale bulb-growers in the Spalding district, in an interesting speech traced the development

of his firm's business from the time when his father commenced it by collecting 'Snowdrop' bulbs from cottage gardens. Since then they had sent tons of bulbs of various kinds each year to Holland. He urged new growers not to settle down in the Spalding district, as they were already quite thick enough there.

Mr. G. W. Leak referred to visit he had made to the Dutch schools, where children are taught to take an interest in their future work on the bulb farms. This form of education, he held, was of immense value to the children in after-life, and it might be copied with advantage in this country. He also referred to the use of the plough on the bulb fields at Wisbech, a point which the Dutch had copied in their own country when short of labour. (Our illustration on page 399 depicts a July scene at Wisbech.) Mr. Leak also referred to the unsatisfactory way of grading bulbs in this country. There was, he said, no uniformity. One man's first size was another man's second size, and bulbs were seldom up to sample. He thought that the Dutch system of selling bulbs by the Centigrade measurement far better. Mr. George Monro, jun., however, did not agree, as the Centigrade system was quite misleading with "two nose" bulbs, and he considered the method of selling bulbs by weight per thousand far better.

At the conclusion of the discussion a resolution was passed assuring the Council of the Royal Horticultural Society of the continued support of the horticultural trade in promoting the development of the British-grown bulb trade and similar undertakings.

EXHIBITION OF HARDY BRITISH-GROWN FLOWER BULBS.

WHAT is needed at the moment is that the home cultivator should advertise his goods by every means in his power, driving home the essentially important fact of the superiority of the home-grown article against all comers. This to some extent was proved to demonstration at the exhibition under review, more particularly in Class 5, for twenty varieties of home-grown Daffodil bulbs, not more than twenty bulbs of each, where some of the produce—that from the Donard Nursery Company—was in the nature of a revelation. It was, however, not ordinary produce—it was extraordinary—"mother" or "breeder" bulbs, doubtless, which, planted two or three years ago and having been grown undisturbed since, had gathered around them many grown-up children. Coming, too, from a genial clime where *Sparaxis*, *Tricuspidaria*, *Olearia* semi-dentata and *Desfontainea*, among others, attain perfection of growth and flowering, it is small wonder that the Daffodil develops to the utmost. The clear object-lesson of such development is that a few thousand acres of such land under similar conditions devoted to bulb culture would keep at home a colossal sum of money which every year is sent abroad. The firm noted alone represented Ireland at the exhibition, though there must have been others who could have sent good produce also, and thus have emphasised the idea we have in view. English trading firms from the counties of Nottingham, Lincoln, Cambridge, Berks and Essex also sent collections.

The most important class, i.e., that most keenly contested and containing the weightiest produce, was Class 5 (open), for a collection of dry home-grown Daffodil bulbs in not more than twenty varieties nor more than twenty bulbs of any one variety. Eight exhibitors staged, the first prize being awarded to the Donard Nursery Company, Newcastle, County Down, Ireland, for a truly wonderful exhibit. All the bulbs were of prodigious size, not comely in appearance, and in some instances their long necks gave the impression of being too deeply planted, which is opposed to the finest modelled bulbs resulting. King Alfred, Mme. de Graaff, Bernardino, Homespun, Mrs. H. J. Veitch, Lady Margaret Boscawen, Gloria Mundi, Horace, White Lady, Seagull and *Rugulosus* were among those shown. It would be interesting to know the weight of this collection of bulbs. Messrs. J. H. Pearson, Lowdham, Notts, were second, showing a magnificent collection evidencing high-class cultivation, with firm, solid bulbs of model pattern. We were greatly struck with the quality throughout. King Alfred, Lucifer, Emperor, P. R. Barr, Florence Pearson, Weardale Perfection, Argent, Albatross, Seagull, Vega, White Lady and *Poeticus grandiflorus* were noted. Messrs. Barr and Sons were third.

For ten varieties of market Daffodils, to include Emperor, Empress, Sir Watkin, Victoria, Barri conspicuus and ornatus, Mr. G. Monro, jun., Spalding, was first and

Messrs. R. H. Bath, Limited, Wisbech, second, the former showing Walter T. Ware and Mme. Plomp; the latter, Duke of Bedford, Golden Bell and Mme. de Graaff in addition to the varieties stipulated.

The two exhibitors just named were in like order in the class for twenty varieties of Tulips, and while both showed excellently, we certainly favoured the second prize lot most for weight of material and general appearance.

Class 8 was for a collection of bulbs, not more than thirty varieties nor more than thirty or fewer than twenty bulbs of any one variety, diversity of genera and species being favourably considered. This was a most interesting class, Messrs. Wallace and Co., Colchester, being placed first, having *Lilium candidum*, Dog's-tooth Violets, Cyclamen, Squills, Colchicums, Brodiaea, Crocus, Leucojum, *Fritillaria persica* (most distinct bulb), and *Irises filifolia* (true, from Gibraltar), *sindjarensis*, *bucharica*, *Xiphium*, *tuberosa* and others. Second, Messrs. Barr and Sons, Covent Garden, W.C., whose distinctive lot embraced *Ixia*, *Oxalis*, *Camassia*, Crown Imperial, *Watsonia Meriana*, *Iris reticulata*, *I. tingitana*, *Belladonna Lilies*, *Chionodoxa* and others. Third, Messrs. Waterer, Sons and Crisp, Bagshot and Twyford. Fourth, Messrs. R. H. Bath, Limited, whose very fine Hyacinths and *Chionodoxas* were a chief attraction.

In the amateurs' class for ten varieties of bulbs, five at least to be Daffodils, Mr. G. Stocks, Bentley Road, Doncaster, was first, showing useful, if small, produce.

Mr. C. A. Jardine, Nightingale Lane, Balham, S.W., showed a collection of twenty-four varieties of Hyacinths with their progeny as lifted, in order to illustrate the possibility of growing these more or less continuously with some measure of success.

OBITUARY

CAPTAIN HENRY DRUMMOND.

GENERAL regret will be felt by all who knew him at the announcement that Captain Henry Drummond of Stirling has been killed in action. Captain Drummond was the son of Mr. James W. Drummond, and was himself a director of the well-known firm of Messrs. W. Drummond and Sons, seed merchants, &c., and took an active part in its management. He followed the call of duty and obtained a commission in the Argyll and Sutherland Highlanders soon after the beginning of the war, serving with conspicuous ability. He is survived by a widow and one son.

SERGEANT GEORGE HARROW.

THE numerous friends of Mr. George Harrow, for many years manager to Messrs. James Veitch and Sons at their Coombe Wood Nurseries, will learn with regret of the loss of his second son, Sergeant George Harrow, who was killed in action on July 1, the opening day of the great advance. Deceased, who was thirty-four years of age, was born at the Knap Hill Nursery and, enlisting early into the Coldstream Guards, came out on pension after eighteen years' service. He rejoined the Colours in May, 1915, and, enlisting into the Queen's Royal West Surrey Regiment, acted for some time as drill instructor before proceeding to the Front. Sergeant Harrow went through the South African War and possessed the South African and Long Service Medals.

JOHN SCOTT.

JOHN SCOTT was a young Scottish gardener with good prospects based on a sound training in the practice of horticulture. For the past five years he held the position of inside foreman in the gardens at Claremont, Esher, Surrey. Previously he had been in the fruit department at Hopetoun under Mr. T. Hay, now of Greenwich Park. He left Claremont to join the Royal Field Artillery and was wounded in battle on July 5, within four months of his joining the Colours. He died from his wounds on the 17th ult. To his mother, Mrs. Scott, East Lodge, Craigie, Ayr, we tender our heartfelt sympathy.

ANSWERS TO CORRESPONDENTS

FLOWER GARDEN.

IRIS DISEASED (*Lieutenant-Colonel*).—*Sclerotinia* is present on the leaf of the English Iris sent, but it is probably a follower of, rather than a cause of, the death of the foliage. If the foliage dies off prematurely, this fungus may cause it, and in that case it would be well, in addition to removing the dead and dying leaves, to mix chalk intimately with the surface soil about the affected plants.

ORIGIN OF ERIGERON QUAKERESS (*L. Bigg-Wither*).—So far as we are aware, there is no record of the parentage of this pretty plant, which occurred, we believe, as a chance seedling some years ago. We do not even know whether it is of English or Continental origin, and should feel grateful to any reader of *THE GARDEN* who may be able to give authentic information concerning it. As a graceful and free-flowering plant of easy culture it would, however, be difficult to beat. E. B. Ladhams and Asa Gray are both new and important colour additions to this genus.

WHITE CAMPANULA (*Tempo*).—We should think from your description that the variety referred to is the white form of *Campanula rotundifolia*, which has been known to cultivators for many years and is grown in most collections of good hardy flowers. It is, as you say, a beautiful and graceful plant, and among the seedling forms improved varieties occasionally occur. There is another white, *C. Hostii alba*, however, which is quite distinct from the above, and to make certain of your plant you should send a representative bunch of it, cut with full-length stems, which may be doubled for convenience of packing if desired. Send also at the same time the other *Campanula* you refer to. A small plant would be best in this instance, as it is not possible to correctly name such things from mere descriptions.

ROMNEYA ATTACKED (*P. D. T.*).—The green bug is the pest which we suspect of being the cause of the trouble with the *Romneyas*. It is a general feeder and difficult to deal with, but frequently causes trouble by puncturing the buds of various flowers as well as leaves of a great variety of plants. The only thing to be done is to spray with paraffin emulsion, for that will prove offensive to the pest and tend to protect the plant from attack. The caterpillar we do not recognise. It is not the larva of the green bug, but of a moth. Did you find it actually in the bud of the *Romneya*? The young of the green bug is almost exactly like the adult, but is without wings, is pale brown or green in colour, and has relatively long legs, with which it runs actively about. In addition, it lives by sucking sap from plants, not by biting pieces out of them as does the caterpillar.

TREES AND SHRUBS.

PLANE LEAVES ATTACKED (*A. G.*).—The Planes are attacked by a very harmful fungus. The diseased leaves should be collected and burned, and if young plants are attacked, it would be well to spray them with Bordeaux mixture or Burgundy mixture so as to stop the spread of the fungus. Young plants are more likely to suffer serious injury from such an attack upon their leaves than are old ones, since the relative amount of their foliage is less.

BIRCH ROOTS AND BRANCHES FOR INSPECTION (*W. McE.*).—From the condition of the twigs and roots of Birch sent for examination it would appear that a fungus disease is at work on the roots, but as the fruiting stage of the fungus had not been reached on the specimens sent, it was impossible to determine the species of fungus. All that can be done is to carefully dig up and burn affected plants, and if a particular area appears to be affected, rather than a general attack being in evidence, dig a trench 1½ feet wide and 1½ feet deep round the affected area to prevent the spread of the fungus mycelium from the roots of unhealthy to the roots of healthy trees.

LAVENDER HEDGE NOT FLOWERING (*Bicknoller*).—The Lavender appears to have had a check in some way, probably from cold winds after the young growth was well advanced, or, perhaps, from an insect attack. Lavender has been attacked rather badly this year in some places by the insect which causes the frothy patches on plants known as cuckoo spit. This insect is one of the frog-hopper family and is known as *Philaenus spumarius*. The froth-like matter is exuded by the larvae for protective purposes. The flowers of Lavender plants attacked in May and June by this insect are quite as poor as those of the specimens sent for examination. Spraying with a paraffin wash will clear plants of the pest. A fungus disease sometimes causes the loss of Lavender plants also, but that was not found on the specimens in question.

SHRUBS TO FLOWER IN JUNE AND JULY (*A. H. R.*).—The following shrubs are likely to suit your purpose. It would be advisable to plant the various species in small groups of, say, three plants each, except where any particular species is of vigorous growth, then single plants will do: Back—*Philadelphus coronarius*, *Spiraea discolor*, *Escallonia langleyensis*, *Genista virgata*. Angled with these and a little in front—*Philadelphus Lemoinei erectus*, *Spiraea salicifolia paniculata*, *Escallonia philippiana*, *Veronica Traversii*, *V. salicifolia*, *Cistus laurifolius*. Front—*Spiraea japonica* Anthony Waterer, *Philadelphus microphyllus*, *Veronica buxifolia*, *V. decussata*, *Daboecia polifolia*, *Hypericum Moserianum* and *Genista pilosa*. All of those suggested for the back are of strong growth.

THE GARDEN.

No. 2335.—VOL. LXXX.

AUGUST 19, 1916.

NOTES OF THE WEEK

STATEMENT has appeared in the public Press to the effect that benzoate of soda may be used to replace sugar in the preparation of jam. It cannot be too strongly emphasised that benzoate of soda is quite unsuitable for the purpose in question, and we join the Board of Agriculture and Fisheries in warning the public against its use in jam-making. Serious results might follow an attempt to substitute this undesirable material for sugar.

Marrows Planted on Heaps.—When visiting gardens recently, we observed many failures of Marrows owing to a very common mistake in planting them on the top of manure and rubbish heaps. In one instance only were Marrows bearing a respectable crop, and in this case they were planted at the foot of a heap and allowed to run over it. It is true that good drainage is essential, but an abundance of manure is also necessary, and this mistake is made every year. Verily old customs die hard.

Rose Iona Herdman.—This is a very promising in Scottish gardens, and the colour is a rich orange-flame which renders it attractive and likely to be largely used for decorative purposes. The orange-flame colour is very effective, and the plant is vigorous and free flowering. It seems to make a good bedder, and as a decorative Rose it is worth consideration. It was sent out by Messrs. McGredy in 1913.

Single Rose Una.—Sent as long ago as 1900 by Messrs. Paul and Son, Una has not found its way into the majority of gardens where climbing roses are favoured. The average amateur still attaches to doubleness as one of the attributes which characterise the best Roses, and, in consequence, chooses charming flowers as this do not make so much headway as they deserve. Una, however, is one of the best pillar Roses we have; on a standard on a tall stock it is magnificent. The flowers are of a pale buff when in bud and open out white, and are of large size. This year it has been exceedingly fine in some Scottish gardens.

Propagating Roses.—Those who have the time and inclination will find the propagation of their own Roses an interesting and simple operation. Stocks suitable for budding will, of course, have been prepared during the winter and now be fit for working that is if budding has not already been done. The season is getting late and no time should be lost in making a start. A dull day is the best on which to insert the buds, as there is not so much chance of their being dried up. Dwarfs are best budded on the stocks just under the ground-level; standards must have the young shoots properly secured against damage by high winds, or they will break.



EVERLASTING PEA. LATHYRUS LATIFOLIUS WHITE PEARL.

across at the point of union. Many of the free-growing Wichuraianas do admirably on their own roots, and cuttings of semi-ripened wood root readily. These should be inserted in a sandy compost either in cold frames or on an outside border.

Lathyrus latifolius White Pearl.—This is one of the most beautiful of the perennial or Everlasting Peas, and it is now producing its large clear white flowers in great profusion. Many of the spikes carry fourteen flowers, some more and others less. As a cut flower it is of great value, while the plants make one of the finest

screens it is possible to have in summer. It is fond of growing over trellises and tree stumps or running up through bushes and low trees, and in such surroundings its elegant growth and freedom of flowering are shown off to great advantage.

Lavender in the Garden.—Lavender is a valuable asset to every garden, for the leaves keep green throughout the year, and in July and August there are the deliciously scented flowers to make the whole garden fragrant and, if required, to gather and dry for placing in linen presses and other places throughout the year. Planted as groups or isolated bushes in the open or shrubbery it is very beautiful, while it is one of the best of all shrubs for forming low, informal hedges. It can also be used with effect on sunny banks where the ground is not of the best quality. Although bushes will last for many years, the best results are usually obtained from fairly young ones, which are easily raised from cuttings inserted in a cold frame, or even a shady border out of doors during summer.

Campanula alliariaefolia.

This is one of the Bellflowers that is not quite important enough to be used as a showy plant for the flower border, but that is admirable in wild gardening or for the region between gardening proper and wilder ground. It grows readily in dry walling and at the edges of steps. It is seen at its best in some isolated position where there is no competition with border flowers, and preferably in a shady or half-shady place. From the prosperous-looking

tufts of heart-shaped leaves rise the spikes of bloom about 2½ feet high, rather Foxglove-like in character, for the individual white flowers, 1½ inches long, droop and are all on one side of the stem. Each plant has from eight to ten main flowering stems, generally upright, but sometimes gracefully undulating; they are slightly branched towards the base and are surrounded by lesser flower-stems.

* * * Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Meconopsis simplicifolia.—It will be of interest to those who admire the handsome *Meconopsis* to note that *M. simplicifolia* appears to be proving perennial in the garden of Sir Herbert Maxwell at Monreith, Wigtownshire. It flowered well last year, and this season sent up an additional number of flowers from what appears to be quite a perennial plant. Would we had more perennial *Meconopsises* in our gardens!—S. ARNOTT.

Plants for Edge of Woodland at Pain's Hill. I suggest that the Meadow Cranesbill (*Geranum pratense*) would prove satisfactory in the position named, issue August 12, page 395. It is one of the most beautiful of the wildings in this district when in flower, and its autumnal tints are grand. A few of that fine Caucasian species, *G. ibericum*, might also be tried. The native Broom (*Cytisus scoparius*) is very showy and should do well, while the white Portugal Broom and the cream *C. præcox* might succeed. Some of the smaller-flowered hardy sorts of Michaelmas Daisies, *Erigerons*, Monkshood and *Anemone japonica* are hardly likely to fail where Foxgloves grow so well.—R. J. M. SKARRATT, Cheltenham.

Seed in Tapes.—In your "Notes of the Week" of July 22, page 353, you speak of an American idea of seed in tapes. I thought it might interest you to see some, and am enclosing a small sample of Spinach seed in this form. A friend in Rome told me of it, and I must say that a first trial was more than satisfactory, especially the root crops—Beets, Turnips, &c., and things like Lettuce, Onions and Spinach. They come up quicker than other seeds owing to the fertiliser contained in the tape, and are already spaced, thus saving untold trouble and transplanting to amateurs whose gardeners are under arms, as here. There are twenty or more varieties of vegetables and seven or eight sorts of flower seeds to be obtained in tape form so far. It is an idea I wish some big English seedsman would try.—AN ITALIAN READER.

The Twelve Best Roses for Pillars and Arches. I suppose individual likes and dislikes will always play an important part in making such selections; that is why I was greatly surprised to find no place given to Tea Rambler by "A. B." in his chosen dozen. Howsoever it behaves elsewhere, it has a genuine claim in this district to be in the first twelve—yes; in the first six. In addition to the usual looked for good qualities it is slightly fragrant—a quality few others, if any, of a like given list can lay claim to. Here are my dozen varieties: Tea Rambler, American Pillar, Lady Godiva, Lady Gay, Blush Rambler, Hia-watha, Dorothy Perkins, Gardenia, Psyche, Tausendchön, Excelsa, and Félicité et Perpétue. Allowing the terms "rambler" and "Wichuraiana" to mean practically the same, I prefer to allocate these types of Roses as best fitted for pillars or arches. Thus, Blush Rambler and Psyche, for examples, will nicely furnish an 8-foot or 9-foot pillar, but with us do not grow sufficiently to cover an arch of such height; but the Lady Gay or Gardenia type will cover the largest of arches generously.—C. TURNER, Highgate.

Rose Mrs. Wemyss Quin.—This grand novelty will be grown in very large numbers as soon as it becomes generally known. I think it is far

superior to such as Rayon d'Or and even Constance, because it possesses the splendid vigour of the Hybrid Teas and the most lovely foliage imaginable. I am not surprised it received such high honour as a gold medal at Bagatelle, for no Rose has ever received this high award more worthily. The intense yellow colour shows up well, the flowers being produced on splendid stems, which will make it an ideal variety for cutting. Messrs. Alexander Dickson and Sons have been very fortunate in producing so many glorious yellow and golden Roses, such as Duchess of Wellington, Miss Alice de Rothschild, Margaret Dickson Hamill, &c. This latter is quite new, but it stands out prominently as one of the best novelties of last year, and we shall all want to grow it largely. The famous raisers of Newtownards must be extremely gratified in raising such fine new Roses and Sweet Peas, and all lovers of these beautiful flowers owe a debt of gratitude to Messrs. A. Dickson and Sons for having given us so many really first-class novelties.—DANECROFT.

A Poppy Sporting.—I have been and still am working on a strain of grey-toned "Shirley" Poppies. The original seeds were given me by Messrs. James Carter and Co., and came from America—some from the manufactory of Mr. Luther Burbank, according to the reading on the packet. This year I have had a good many of the most glorious white flowers that anyone could wish for, with yellow filaments and pollen, and just two or three plants with dark—almost black-looking—pollen. More than once I have very nearly decided to reverse my efforts and go for whites; they were so lovely. However, this is not my point. It is that I have come across one plant which has produced both deep bluish grey flowers and pure white ones. I am sorry to say that I thoughtlessly cut off the branch that bore the whites, as I now feel I should have kept it and saved seed. Would readers kindly tell me if this sporting in Poppies is common or not. I have never come across it before, but then it is only in the last three years that I have grown isolated plants. As they have heretofore been grown in a mass, plenty may have sported and never been noticed.—JOSEPH JACOB.

Pond Weeds and Copper Sulphate.—I was rather interested to note in THE GARDEN for July 29 an article on "Pond Weeds and Copper Sulphate." Among the many water weeds, I think the most hateful is the floating *Microcystis æruginosa*, which belongs to a class of microscopic plants called the Cyanophyceæ, which is named in allusion to its blue-green colour. The lake here became polluted with it a few years ago, and it has gradually got worse. While the creeks and backwaters lie thick on the top with the decayed scum from it, in the lake proper the water looks as if meal had been stirred through it. Fish do not thrive in it, as I understand it clogs their gills and stops their respiration. One who has studied the subject tells us that many of those plants excrete poisonous substances, rendering the water for a time injurious. Horses, cows and other animals have been killed by drinking the water from lakes that are badly infested by such plants. During winter the *Microcystis* is scarcely noticed, but the first spell of heat in spring or early summer brings it into prominence. The area of the lake here prohibits us from an extended trial with the copper sulphate, but I have used it with good effect in the lesser ponds and water basins. Great care must be taken that streams running from

ponds are not contaminated with the copper sulphate, more especially if the stream waters any grazing ground for cattle.—JAMES McGRAN (gardener to Sir William Houldsworth), Coodham, Kilmarnock.

Viola on a Brecon Hilltop.—Your correspondent is in error—[The mistake is ours, and not our correspondent's, who collected the plant and, after growing it for two years in her garden, sent it to us for naming.—ED.]—or her gardener has made a confusion. The plant she collected on a Brecon hilltop is that beautiful and very abundant English alpine, *Viola lutea*, in one of its purple forms. Neither *V. gracilis* nor *V. Valderia* is a British species at all. They are, also, two such definite Pansies that I find it hard to understand how even the most ardent "lumper" can talk of *V. "gracilis Valderia"*! *V. gracilis* and *V. pseudo-gracilis* are species of far South Europe and Greece; *V. Valderia* belongs exclusively to the Maritime Alps, and draws its lovely name from the Baths of Valdieri, under the Argentera.—REGINALD FARRER.

— I should like to thank you for the trouble you have taken over my little *Viola*, and to say most emphatically that your attitude of reserve in viewing it as a British native has my full understanding. In the interests of sound botanical knowledge a record of an *undoubted* native can only be admitted on the surest grounds, and it never occurred to me that I, a mere dabbler in botany, could possibly establish such a thing. So, having nothing to prove and all to learn, I am more than content to leave the plant under your trained observation, and beg to offer my thanks at the same time. Nevertheless, I am but misleading you if there is a question of mistake on my part, and I hope you will allow me to assert that there could have been none in my own garden, for I have never anywhere seen any *Viola* species even remotely resembling this one in habit, much less possessed one. I could not possibly have such ordinary species as *cornuta* in variety, *hirta*, *biflora*, *palustris*, and so forth, and know them perfectly well, and grow this plant among them—so unlike—without even knowing whence I had procured it. Moreover, to go back to the beginning, it was the somewhat blue tint (differing from the ordinary wild Heartsease) of the flower which first caught my eye among the grass of the hilltop. I bent down to examine it and was much struck with its unusually neat habit, and then and there proceeded to carry out Mrs. Ewing's golden words to children:

"Although fair things be common, this moral bear in mind—

Pick thankfully, and modestly, and leave a bit behind."

I planted it on returning home, labelled it—to repeat my former words—*Viola Llan*—, and watched it for a couple of years or so, fearing that it might prove to be an annual or, at most, a biennial, like the typical wild Heartsease. It never drooped nor faltered, but grew on, surely if slowly, to its present size, a cushion about 1 foot square and 2 inches high, covered for weeks with clear blue purple flowers. I must ask you to be lenient towards my tiresome reiteration, but I am endeavouring to be absolutely sincere and absolutely accurate; otherwise it is wasting your time to keep the plant under your observation, as you kindly offer to do.—FRANCES E. WALSH, Chelford. [The *Viola*, of which cuttings

were struck from pieces sent, having developed sufficiently for identification, we have again examined it, and have come to the conclusion that it is a purple form of *V. lutea*, known as *amoena*. This is a fairly well known plant which is found on Welsh and Yorkshire hills. Many of these *Violas* much resemble each other and it is easy to mistake them, especially in a partly withered condition. We are sorry if we raised false hopes in our correspondent by having erroneously applied the name *gracilis* *Valderia* to her plant, but at first sight it looked much like it. We thank Mr. Farrer for his observations, though we can hardly agree with him *re gracilis* and *Valderia*, for if he looked at the specimens from various localities he would find it difficult to say where one left off and the other began. They are two extreme forms, and both have been included under *V. tricolor* by some botanists.—ED.]

Gentiana Kurroo.—This is a rare and most beautiful Himalayan species recently reintroduced, having flowers about the size of those of *G. acaulis*, of a beautiful azure blue colour, with a speckled white throat, and carried on dark, shining, foot-long stems lying prostrate on the ground. It does not seem at all difficult to grow, flowering here about the third year from seed in a mixture of equal quantities of granite chips, peat and loam. A choice sheltered spot in the rock garden, where it can obtain ample moisture at the roots, suits it admirably. It flowers during August, the blooms lasting about a week when fully open.—H. CRAVEN, Aldenham House Gardens.

Potato Planting for Christmas Use.—There should now be no delay in planting Potatoes (last year's seed) for use at Christmas-time, and there being nothing special in the planting, the following hints may serve some useful purpose: Plant where least exposed to the north and east wind, even between fruit trees or flowers if no other ground is available, and immediately there is any indication of frost in the air, fill the drills or bed round the plant for at least 20 inches with some good stable manure (if unobtainable, use straw), for no other reason than to protect the tuber root from being frost-bitten, which is the crux of the situation. The plant should not be disturbed until two or three days before Christmas, and only what is required lifted for immediate use. Care should be taken to replace the manure, as the Potatoes will continue to mature well into the coming year. The skin of the Christmas Potato will be found tougher than that of the usual early Potato, but may be readily removed with a clean, hard brush. For home culinary purposes no venture could be more interesting and useful; but, commercially, the risk and labour are quite beyond the value of the land for other cropping purposes.—JOSEPH R. HOLMES, *Bowmore*.

Pungent Preserve of Pears.—My cook, "Mrs. Busy Bee," wishes me to say she has found the "Pungent Preserve of Pears," published in THE GARDEN a year or two ago, most useful for several purposes, such as curries, savouries, &c., and suggests that it would be worth reprinting this season, as there seems to be a large crop of Pears in many places, and Pears of poor dessert quality can be used for the preserve. The Tomato preserve also keeps extremely well, and is not common.—D. T. C. [We are only too pleased to reprint the directions, which are quite simple.—ED.] "Pungent Preserve of Pears.—An excellent addition to curry, or can be used as a sweet chutney. Ingredients: Four pounds of Pears,

3lb. of sugar, 2oz. of ground ginger, the juice and rind of a large Lemon, a suspicion of Cayenne pepper, and a little water. Method: Pare, core and quarter the Pears and boil with all the other ingredients till quite tender.—ANNE AMATEUR."

Toads in the Strawberry Bed.—I have kept several kinds of toads in captivity, both foreign and British, and watched them very closely, besides observing the common toad in its wild state, but I have never yet seen a toad eat any object that was not alive and actually moving. I have seen my toads squatting by the side of an insect which was "shamming dead" for as long as ten minutes or more waiting till the insect moved, when at once it would eat it; but *never* while it kept still. Sometimes the insect would keep motionless for so long that it outwore the toad's patience, and in that case the latter would go off in search of more lively prey; but it never tackled a motionless creature. I think that all

a matter of size. I have not my note-books at hand, but I add from memory a list of the creatures I used to collect for them and which they readily ate: Centipedes, millepedes, spiders, beetles, earthworms, caterpillars, earwigs, flies, moths, pill-woodlice and common woodlice. My biggest common toad would eat from forty to fifty woodlice at one sitting. I think the above list is sufficient to show what useful creatures toads are.—C. M. BLACK-HAWKINS, *Snakemoor, Botley, Hants*.

Orchis maculata alba.—Occasionally the pure white *O. maculata* is seen in Somerset, though less often than a spotted form on a white ground. On June 6 of this year I noted several of both varieties, together with a number of different colour-forms of *O. maculata* and *O. latifolia*, and also a hybrid *maculata* × *latifolia*, in meadows near Coleford, between Radstock and Shepton Mallet. The sight of thousands of Orchids from white to deep rose and purple was a glorious one. The pure white *maculata* appeared to have no



THE RARE GENTIANA KURROO, NOW FLOWERING IN THE ROCK GARDEN AT ALDENHAM HOUSE.

naturalists agree on this point, so it does not seem logical to accuse toads of eating Strawberries, though I imagine it would be not only possible but quite probable for them to tackle a Strawberry that was infested with worms or beetles. The glutinous tongue might well snap up the fruit with its marauders, though the vegetable portion of the mouthful would be unintentional. I notice your correspondent "H. P.," on page 342, issue July 15, says that toads eat slugs. This I do not think to be the case with our common toad. I used to collect small slugs with which to feed my fire-bellied toads, as they were very partial to this diet, but the common toads which were kept in the same vivarium would never touch them. Knowing the point is undecided by naturalists, I tried to tempt them many times, but never succeeded in inducing them to swallow one. As the slugs were much smaller than some of the earthworms they ate, it cannot have been

spots on the leaves; and, judging from dried specimens, this applies to some of the others also. In Mr. White's "Flora of Bristol," page 556, he quotes an interesting observation of the late David Fry upon the hybrid *maculata* × *latifolia*, in the course of which we find: "The general colour of the flowers is purplish, whereas in *maculata* type they usually have a nearly white ground." I believe pure white forms of *O. ericetorum*, Linton (*O. maculata* var. *præcox*, Webster) are also found. They sometimes grow together, but *maculata* replaces Mr. Linton's Orchis on limestone soils. Mr. E. S. Marshall says in his "Supplement to the Flora of Somerset" that "in the south-west of the county it is certainly the prevailing plant"; and Dr. Moss had told him that "he believed *O. ericetorum* to be the Linnean type of *O. maculata*"; if so, it is strange that I could see no good *ericetorum* among the European material either at Kew or S. Kensington.—H. S. THOMPSON.

NATURAL ROCK EDGINGS

WHY not? Surely it is time the conventional glazed tiles of cabled and laced pattern were relegated to the scrap heap; one would have thought these would have gone with the days of clipped trees, shaven shrubs and garden statuary. The cold and rigid glazed edgings are neither goodly to look upon nor sympathetic to plant life; no self-respecting plants ever cling to them.

In their place one would like to see the extended use of local stone, either sandstone, limestone or any natural stone except flints, and, above all, eschew that made by man. A good material for the purpose is our local Sussex sandstone. It is of a beautiful warm tint, varying from deep chocolate colour to golden, and soon tones down with

I encountered such an instance recently, where at much expense, of which a considerable item was absorbed in freightage, some 60 yards of artificial stone edging was procured. It was of the paving-stone pattern, to go along a herbaceous border, and was laid, of course, perfectly rigid and level. The line was eventually relieved by the kindly hand of Nature, assisted by the gardener, who had planted some Pinks, &c., here and there which were beginning to overlap. But no plant will ever make its home on it; even the moss that grew over the ash path to its very edge eschewed to climb it. This occurred within a mile and a half of a sandstone quarry. But even good sandstone can be abused. I well remember a certain garden where it was laid round a semi-circular drive. It was simply dumped on top of the

be required to be cut in good-sized blocks and put down as firmly and informally as possible.

This stone edging, too, is most essential where crazy paving is used for the pathway, providing the interstices between the stones are filled with soil, not cement. The various plants can then ramble down and find a congenial home in the pathway; the more or less frequent use of the path will check them from becoming too obtrusive. Finally, can one conceive a more picturesque setting to bed or border, interesting at any season, than a well-laid edging of this description properly planted with suitable objects, of which we have an infinite number and variety, from the tiny star-spangled *Arenaria balearica*, which will creep over any moist rock, and mossy hummocks of *Saxifraga muscoides*, to cascades of gold and silver, greys and mauves, mounds of pink and crimson, drifts of fragrance in flower and foliage? These and more go to make an ever-changing picture as the season advances and wanes. In conclusion, I would add

that this offers an interesting field over widely separated districts and varied aspects. If it were more generally adopted we should see less formality and artificiality and more pleasing and harmonious effects, not to mention the old-world touch it would give where it is so much needed.

I append a short list of suitable subjects. First, *Aubrietias* are a host in themselves, and beautiful drifts of mauve, pink and purple can be created with these; also, do not forget the silver and golden varieties. Single white *Arabis* makes a nice companion, but the double variety is much too rampant here. *Alyssum saxatile compactum* and the double form make a nice bit of colour; also the white *maritimum* is in flower all the summer and is sweet. *Arenaria balearica* is already named, but *montana*, *laricifolia* and *grandiflora* should be included; also *Ajuga metallica* and *reptans purpurea*, the foliage of which is distinct. *Achillea argentea* is a nice silvery subject, and *rupestris*, green, and beautiful in flower. *Asperula odorata* is a sweet native for a shady corner. Of *Campanulas* we



A HARDY FLOWER BORDER WITH ROCK EDGING AT ALDENHAM HOUSE GARDENS.

age and becomes moss grown. The lines of stratification are not very clearly defined, so for economy it can be placed on any side; the more bluff and irregular they are, the better for our purpose. It is here important to point out—and too much emphasis cannot be laid on this fact—that in laying these stone edgings it should be done on a perfectly firm base. The soil should be well rammed along the line before laying them down, with a slight inward tilt towards the bed or border, which allows the moisture to run to the roots of the plants. The soil also should be well packed behind and between the fissures, in which the plants we shall use will find a congenial home and soon cover.

This appeal is mainly directed to the better class of suburban residents attached to our growing seaside resorts, large provincial towns and so-called garden cities, residences with an acre and upwards. It is here we see such glaring mistakes, often with a total disregard of local resources.

ground some three or four seasons ago, and ever since the plants, chiefly *Aubrietias*, *Arabis*, *Cerastium*, &c., have been trying to overcome what is to them an insurmountable difficulty, viz., trying to cover draughty crevices; consequently the object was not attained. Again, if this method of edging were more generally adopted, we should materially assist drainage by raising the beds or borders above the general level, an essential advantage on heavy soils, and many plants which fail owing to our mild, wet winters would obtain better and drier conditions.

Although I have never seen peat used for this particular purpose, I am convinced from experience in other directions, and from what one reads of peat rockeries, that it could be used with success where stone was not available. Seeing that a vast number of plants exist on it, certainly it would have the distinction of being unique. Experience in this direction would make interesting reading in future. Obviously it would

have *carpatica* and its varieties; *garganica*, neat and pretty; *isophylla*, white and blue, for South only; and *muralis*, rather rampant, but worthy. *Cotula squalida*, a small feathery carpeter. *Dianthus cæsius* and *neglectus*, both natives and pretty, and the garden forms of *D. plumarius*. *Erigeron mucronatus*, an exquisite Daisy, looks pretty down a rock face. *Gypsophila repens rosea*. *Tunica Saxifraga*, a nice companion. The Foam-flower (*Tiarella cordifolia*) is as good as its name and forms a miniature cascade. *Herniaria glabra aurea* and *Hutchinsia alpina* are both good coverers. *Lithospermum prostratum*, a lovely blue trailer. *Mentha Requierii* forms a fragrant carpet; so do *Micromeria corsica* and *piperella*. *Thymus citriodorus argentea* and *aurea*, sweet silver and golden, also the woolly *lanuginosus* and varieties of the native *Serpyllum*. *Phlox subulata* and its numerous varieties are all good, also *amœna*, *rosea*, *decumbens* and *Douglasii*. *Pratia repens angulata* is a pretty white *Lobelia*

like flower. *Saponaria ocymoides*, a lovely pink trailer. *Saxifraga muscoides* is indispensable; *Camposii*, *hypnoides* and *decipiens grandiflora* are all good rampers and need keeping at home. A *Senecio* under the name of *Persooni* is a pretty bit of silver, and *Silene maritima* and *Schafta*, both pink. Finally there are many *Sedums*, *Semprevivums*, *Violas* and *Veronicas*. Some which should not be grown are *Campanula rapunculoides*, *Linaria Cymbalaria*, *hepaticæfolia* and *pallida*, also *Epilobium nummulariæfolium*. Do not plant these unless you want trouble or have a place where nothing else will grow.

Bexhill.

W. D.

BORDER CARNATIONS

By J. L. GIBSON.

A REPORT of the annual show held at Vincent Square on July 20 has already appeared in THE GARDEN, but a few casual notes and comments thereon may not be out of place. It was a great day of triumph for the famous house of Edenside, Mr. James Douglas making a clean sweep of every first prize in Classes 1 to 10 inclusive. Mr. Brown of King's Norton was a persistent runner-up in most of the chief classes, and I am glad to put on record here my admiration for his new Picotees Professor Burstall and Queenie. The latter struck me as being a better flower than the same grower's specimen of the much-discussed Eclipse. I think, however, it was pretty well agreed that Eclipse was not in good form this year. It was certainly rough in several of the classes where it appeared, and if this habit is perpetuated in coming years, the variety is doomed. But Queenie was a nice flower and a welcome addition to the yellow-ground Picotees.

Among the dressed flowers Mr. Douglas had two peerless varieties, Maud Allan and Bookham Scarlet. I should call the latter the best flower for card showing at present in existence. Maud Allan is several years old now, but it has a perfectly constant yellow shade and a wonderfully smooth petal, and is always sure of a place among a dressed dozen. After all, not many people dwell over these card-mounted blooms, and I always feel a sense of relief in passing on to the more naturally exhibited Carnations.

For four varieties of selfs Mr. Douglas won with excellent specimens of Mrs. G. Jones, Daffodil, Fujiyama and Mrs. George Marshall, the last named being one of the finest flowers in the show. Mr. Lakeman of Thornton Heath was a creditable second in this class, his Bookham White and Daffodil being very good. Edenside, Linkman, Mona and Pasquin were the first prize fancies (other than white ground), and the class for white-ground fancies was, I think, the exhibit that pleased me most in the hall. Mr. Douglas had four of his newer sorts in this, and I am sure very few growers will want to be without plants of any of them next year. Fair Ellen is a novelty of much promise, and was awarded a first-class certificate. The flower is large, with well-formed petals, the ground colour of purest white and the dainty lavender markings pencilled on with a very delicate touch—perhaps the best flower of its kind there is. Mrs. P. W. Owen is a companion, but with pink markings; while Lord Kitchener and Othello are real masculine flowers, bold, commanding and decided. Lord Kitchener,

something in the way of Centurion (another fine addition to make to one's list, by the way), but with a white ground instead of a yellow as in the last named, is a flower which, worn as a buttonhole, makes nearly every passer-by stare. Othello, the remaining variety of this strong quartet, is, in Mr. Douglas' opinion, the best of all his white-ground fancies, and that is high praise indeed. The ground colour is very boldly marked with a warm maroon, making a flower as striking in appearance as any in the Carnation world.

Among Picotees I liked Cheam, a rather small flower, but of exquisite sweetness, trim, neat and lovely as a flower can be.

Of the better-known sorts Mrs. J. J. Keen was well shown and remains a very high-class Picotee, but I have lost most of my admiration for Her Majesty. The bars of colour on the under side of the petals show through and greatly spoil the purity of the ground. Mr. Brown's Zena Dare I frankly did not like. The ground is pale and washy, with no distinction in the flower to mark it as a good thing. The amateurs had some fine examples in the Picotee classes, Mr. Morton's Onward and Mr. Keen's Mrs. Keen (as should be!) being noteworthy. In the selfs, too, Gordon Douglas was particularly fine as shown by Mr. Morton, as was Mrs. George Marshall from Miss Shiffner. Again, Miss Shiffner had one superlative Fujiyama among her three in Class 20. Miss Rose Josephs, the best of the old rose varieties, is always a flower of perfect shape, but it was particularly well shown by

Mr. Frostick, who won with it in the class for selfs "of any other colour." Mr. Fairlie was frequently congratulated for his three blooms of the old Persephone. He had them in masterly form, too, for it is not an easy plant, and the flower is possessed of one of those testy combinations of colour that demand great excellence of growth to show up well—a dark mauve flaked with cerise. I had never previously seen blooms of this variety so beautifully formed, and they well deserved the praise bestowed on them.

The astonishing thing is that such a fine lot of material was forthcoming at all to make up what proved quite a satisfactory Carnation festival.

SOME FLOWERING SHRUBS OF LATE JULY

By the third week of July there are not many shrubs in flower, but it is worth while to group together some of the few that are in bloom with other plants of the season and some of fine foliage. The illustration shows such a group at the edge of a shrub clump that borders a space of lawn. *Spiræa ariæfolia*, well known by this name, though more properly *S. discolor*, a large bush some 12 feet high and as much in diameter, is just opening its graceful drooping panicles, though the greater



FLOWERING SHRUBS GROUPED WITH CHARMING EFFECT AT MUNSTEAD WOOD.

number of these are still in the creamy bud state. Beyond it is a tall bush of *Veronica Traversii*, loaded, as it appears to be everywhere this year, with its milk white bloom; further back is a spike of *Yucca gloriosa*. The general prevalence of cream white bloom is carried down to the grass by some well-established clumps of *Clematis recta*; while between them and the shrubs are some spikes of the white *Campanula macrantha*, a fine garden form of *C. latifolia*. The mass of white bloom is well set off by a foreground of the handsome foliage of *Acanthus* and clumps of the bold leaves of the large form of *Megasea cordifolia*.

G. J.

PAULOWNIA IMPERIALIS

THIS is one of the most beautiful of flowering trees, and a good specimen when in bloom cannot fail to attract attention. It makes a round-topped, deciduous tree, with stiff branches and open habit, bearing large, attractive, lavender blue flowers in terminal panicles 1 foot or more in length, the individual flowers being tubular and about $2\frac{1}{2}$ inches long, covered with short, stiff hairs on the outside of the corolla, while the inside is marked with rows of dark brown spots. The flower-buds are produced before the fall of the leaves the previous year, and are covered with a thick felty calyx, which acts as a protection for the flowers during the winter.

A native of Japan, it was introduced into cultivation in 1840, and one of the original trees in the Jardin des Plantes, Paris, is probably the finest in Europe. In Paris it is planted as a street tree, and an avenue of the trees when in bloom makes a very fine sight. The wood of the Paulownia has a beautiful grain, and, owing to its resistance to damp, is preferred of all others for wardrobes.

The name Paulownia was given to this tree in honour of Anna Paulowna, Princess of the Netherlands, daughter of Paul I., Emperor of Russia. Thunberg, in his "Flora of Japan" (1784), named it *Bignonia tomentosa*; while in Elwes and Henry's "Trees of Great Britain" it is referred to as *Paulownia tomentosa*. Apart from its beauty as a flowering tree, a fine foliage effect can be obtained by planting young plants in the autumn and cutting them back hard every year, the result being tall, strong shoots with large, handsome leaves.

Propagation may be effected by imported seeds, which should be sown in a cold frame; or by cuttings of firm young shoots, placed in sandy soil in a frame, good plants can soon be obtained.

The illustration is of a good specimen growing in the Cambridge Botanic Garden. Although not one of the largest examples, it seldom fails to flower very freely during May and June, and at that time is the most admired tree in the Garden.

F. G. PRESTON.

HOLLYHOCKS

THE only way to be certain of obtaining a good display of these noble flowers is to raise them annually from seeds. Those sown some time ago should now be ready for potting on. A good rich loam should be provided, and the plants grown on in quite cool quarters, wintering them where frost is just excluded. Seeds may still be sown, but at this season they would require to be placed in heat, afterwards hardening off the plants.

PLANNING A WILD GARDEN

IT is doubtful if any branch of gardening has attained a greater degree of popularity during recent years than that known as wild gardening. This can be carried out in an economical manner, often by the owner of the site, and its upkeep does not involve much labour. A well-arranged wild garden is certainly a source of delight, for if the site is fairly extensive, it can be rendered extremely diverse and beautiful in its formation and character.

There are positions adjoining many country houses that would make ideal wild gardens if properly taken in hand by a landscape artist, who would preserve existing and create fresh beauty.

specimen trees to lend dignity to the surroundings, and perhaps a tumbling hillside stream besides, a veritable panorama of beauty can be formed by making a judicious selection of the best shrubs and plants, and by planting them in an artistic and informal manner. In this connection some of the better conifers should be included, as their warm colouring is especially welcome in the winter. Of course, the most striking effects can be created when a broad expanse of ground is available, although quite pretty features may be formed in a comparatively small area.

It is a point of some importance when planting to arrange for surprise features about the garden in certain positions, by planting groups of shrubs to effectually screen the view beyond until one comes close upon the scene. Different subjects should be used for this purpose, so as to give each section an individuality of its own. It is also desirable to provide glades in certain positions, for they are always a source of attraction when appropriately located towards the outskirts of the garden, so as to reveal a view of the country beyond or include some adjoining garden feature. When well placed, glades give an impression of extent, which is often desirable if the grounds are rather small. They may be planted with a dwarf-growing subject like *Erica carnea*, or some other Heath; and if of grass, bulbs should be planted freely to provide a display of blossom in the spring. A glade bordered with Silver Birch trees and carpeted with Bluebells forms a delightful picture when the latter are in bloom.

When a stream runs through the wild garden, it can often be widened into pools at intervals, and in suitable positions large boulders of rock may be placed to form miniature cascades. Water should always be utilised to the fullest extent, as it tends to give a sense of



A FLOWERING TREE OF PAULOWNIA IMPERIALIS IN THE BOTANIC GARDEN, CAMBRIDGE.

It is necessary to depend to a large extent on the existing natural features for the outstanding characteristics, and further developments should be made to harmonise with the surroundings. One usually has to utilise whatever stretch of ground is available, but whenever possible choose an undulating site, as such a position can be made so much more interesting and attractive than a comparatively level area. When dealing with a level situation, it is often possible to vary the monotony of the surface by throwing up mounds and forming miniature valleys in suitable positions, which enables the planter to create more beautiful and diverse features than would otherwise be possible.

An undulating site possesses great advantages, however, for then the work of planting can proceed uninterruptedly. When such a stretch of ground is available and there are already a few large

completeness and natural charm, and numerous moisture-loving plants can be grown near the streamside.

The walks should be pleasantly winding, yet direct withal, and if of grass keep them mown regularly. Self-sown flowers may be encouraged, as they often provide patches of colour in appropriate positions, and lend a desirable naturalness of aspect to the scene. Groups of flowering shrubs are always welcome in suitable positions. A portion of the wild garden might well be devoted to an artistic grouping of the Japanese Maples, and if thinly disposed in the grass they are more attractive than when massed in beds. Various flowering shrubs, such as the Magnolias, Spiræas, Lilacs and Berberis in variety, should be well represented, not omitting *B. Thunbergii* and *B. virescens* for their rich leaf colouring in the autumn. The English and Spanish Brooms and

the double-flowered Gorse merit inclusion, and when associated with large stretches of the hardy Heaths help to complete a characteristic moorland scene. Rhododendrons and deciduous Azaleas will create bright patches of colour in early summer, and should be planted when the soil suits them.

Roses in variety never fail to please, and are especially effective grown in large masses. Fellenberg is a great acquisition, as it flowers incessantly until checked by frost; while *Rosa rugosa*, *R. rubrifolia* and the *Wichuraiana* varieties create a glorious display. The latter are especially desirable to cover old tree stumps. Numerous hardy perennials might be massed in irregular groups, and of these the Delphiniums, Pæonies, Lupines, Phloxes, Anchusas and Oriental Poppies are some of the best for the purpose. *Kniphofia Uvaria grandiflora* is an ideal subject to group for distant effect, and a mass of *K. caulescens* is particularly attractive at the end of June.

The English and Spanish Irises look well in large irregular beds, and the Siberian Iris flourishes near the streamside. The incomparable Japanese Irises create a glorious show in July, and they succeed in a similar position if planted in well-enriched soil. The waving plumes of the *Spiræas*, *Astilbes*, *Rodgersias*, *Lythrums* and *Epilobiums*

are seen at their best near the water's edge, and they should be planted in bold groups. Other plants that prefer moist soil are the Willow Gentian, *Artemisia lactiflora*, *Senecio Veitchianus*, *S. Clivorum* and *Rheum palmatum*. The broad-leaved Gunneras are particularly handsome and effective, especially near the water. *Saxifraga peltata*, with its attractive foliage, is an ideal plant for the streamside, and *Osmunda regalis*, the Royal Fern, flourishes in a similar position. Large colonies of *Primula japonica* and *P. cashmeriana* might be formed in moist soil, and where they can have the benefit of partial shade. Some of the large-flowered *Polyanthuses* are very beautiful, and they succeed admirably when planted in the grass.

By growing these subjects and similar hardy plants in bold and irregular groups, glorious effects can be formed, and not only will a garden of flowers result, but a scene of natural beauty and interest will be created. Such a garden requires a certain amount of care and attention, for if the plants are allowed to grow quite unattended it would soon become a wilderness, and many of the subjects would be choked with grass and weeds. It is advisable to keep the plants regularly weeded, and those that need it

should be suitably supported. The grass may be mown at the end of June, after the wild flowers have blossomed, and again in the autumn, which will suffice to keep it under control and at the same time permit the indispensable naturalness of aspect that should pervade such a garden.

G. B. M.

TRANSPLANTING CROWN IMPERIALS

FRITILLARIA IMPERIALIS is one of the most decorative of spring-flowering bulbs, and if planted at first in a deep, rich, drained soil requires but little attention afterwards. Where the bulbs have been in the same place for some years and the stems do not grow strong and flowers are scarce, these are signs that the bulbs are overcrowded and the soil exhausted. Now is the season to lift and replant. Take up the bulbs carefully, select the strongest, and if they are to be planted in the same position, add some turfy loam, a quantity of leaf-mould, and some wood-ashes or old mortar rubble. Mix and place this in the hole, and, after making it firm, plant the bulbs 4 inches deep and 6 inches apart. The bulbs should not remain out of the ground for any length of time, or the growth will be poor the following year.



WAVING PLUMES OF PURPLE LOOSESTRIFE AND SPIRÆAS BY THE LAKESIDE AT KEW.

THE RATIONALE OF FRUIT TREE PLANTING

By E. H. JENKINS.

FOR the opportunity and privilege of placing before readers one of the clearest object-lessons anent this subject I have seen, the thanks of THE GARDEN are due to the Royal Horticultural Society, in whose gardens at Wisley the photographs from which the accompanying illustrations have been prepared were taken. Amid the many interesting trials and experiments which are being conducted at Wisley, that to which attention is now directed should prove not the least valuable or instructive, since, by reason of its completeness, the case is proved to a point of demonstration. It is one of those experiments, however, the good

equality of size, vigour and the like. Some were on Paradise and some on the Crab stock, each variety being confined to one or other stock. Fig. 1 shows five trees of Emperor Alexander on the Paradise stock, the specimen in the cultivated land having attained, roughly, $7\frac{1}{2}$ feet high and 6 feet to 7 feet diameter, while that at the opposite extreme of the line indicates but little progress from the time of planting. Fig. 2 depicts two lines of trees, photographed on one plate and taken crosswise of the plantation, one showing the trees in the open quarter, the other the first line in the circular beds. Fig. 3 shows the line of trees entirely on grass. The varieties planted



I.—A ROW OF APPLE TREES SHOWING THE INJURIOUS EFFECT OF GRASSLAND. The tree in the foreground is growing in cultivated ground, the next trees are set in circular beds, and those furthest from the camera are grassed right up to their stems. All the trees are of the same age and were selected for equality of size at the time of planting.

or ill—or both, as in the present case—results of which are not revealed in a day or even a year; hence considerable time and patience are necessary before the full value of the work is seen.

Planted in 1912—I believe that is the correct date—the trees seen in the illustrations now given have had ample time to establish and to give promise of a fruitful return. An inspection of the figures, however, will show that not many are up to fruiting size. Some, indeed, would appear to suggest that they will not live long enough to reach that stage, others being full of promise in an opposite direction. Here it should be stated that a chief object in view was to test the relative behaviour of Apple trees planted in grassland, *i.e.*, grassed right up to their stems, with others set in circular beds 3 feet or 4 feet in diameter, and others, again, growing in the open quarter, to which the ordinary methods of field cultivation would apply. Five trees each of several varieties were planted, the examples specially selected for

were Emperor Alexander (on Paradise stock), Beauty of Bath (on Crab), Newton Wonder, Mank's Codlin (both on Crab) and Ribston Pippin (on Paradise). In the result we see on the clearest possible evidence (1) the immeasurable superiority of those trees growing on cultivated land, (2) the greatly diminished size of those set in beds on grass, and (3) the wretchedness of those encompassed entirely by grass. To these latter the exclusion of light, air and moisture to the roots of the plants has obviously dealt an almost fatal blow, their present condition indicating that they are being starved out of existence; and, left to themselves, in a light soil like that at Wisley their deaths cannot for long be delayed. In all probability the greatest bar to progress in so light a soil has been the well-nigh total exclusion of moisture to the roots of the trees. One is strengthened in this view, remembering the good examples seen occasionally on lawns giving heavy crops of fruits annually, and more frequently those growing in cooler

meadow soils where the lack of moisture would either not arise or is ample for both the needs of the tree roots and the herbage above. The point is raised advisedly in the hope that some of our many expert fruit cultivators may give of their experience. Doubtless the weight of evidence would favour cultivation in open land. At the same time, the experience of those who have for years successfully cultivated the Apple otherwise would, while proving instructive, also assist those having a desire to grow this fruit from the decorative standpoint on lawns for the ornament the trees afford each year in spring.

DO BEES EAT FRUIT?

EVERY now and then the honey bee is accused of injuring fruit crops, persons stating that they have observed bees sucking the juices of various fruits. This is undoubtedly correct, for bees may often be watched busily feeding on sweet fruits; hence the uncritical not unnaturally conclude that during the fruit season the bee should be placed on the black list. But—there is always a “but” in everything—the bee is never the first in the field. Someone or something—clumsy persons, wind or hail, wild birds or poultry, or, more frequently, wasps and other insects—first damages the fruits and, the storehouse being opened, bees follow and take toll. An agricultural society of Florence, Italy, carried out careful and thorough investigations into this question of fruit injury by bees, and was able to completely exonerate the bees from any first-hand pilfering. Bees are unable to perforate fruit skins, so that undamaged fruits are quite safe from them. It was found that rather than causing loss, the bees performed the kindly offices of desiccating many fruits, particularly Grapes, by sucking them dry, thus preventing fermentation and the consequent rot spreading to sound fruits.

The good work which bees do in fertilising the flowers in the spring is known to all, and it is notorious that plantations and orchards within the reach of bees produce more constant crops than those unvisited. Bees travel fully three miles from their hives during fine weather in their daily search for honey and pollen, so that they do good for others than their owners. I have an intimate acquaintance with a large garden on the outskirts of London which for many years, when visited by bees from another garden quite a mile away, had satisfactory crops of hardy fruit. But the devastating Isle of Wight disease destroyed the bees, and from that time there has been an appreciable diminution in the fruit. Bees from a healthy stock are now being introduced, in the full expectation of a return of the old-time plentiful supplies of fruit.

CECIL BARTLETT.

STORING APPLES

I HAVE no proper Apple store or possible prospect of making one. I place my Apples in a dry cellar, where they keep only moderately well. I have been told that Apples can be successfully “clamped” in the open garden, as are Potatoes or Turnips, and that they should be covered with straw before the soil covering is put on. But I fear the straw would mildew and spoil the flavour of the fruit. I read THE GARDEN carefully and regularly, but I have not seen any reference to

this practice. Would you kindly tell me: 1. If Apples can be successfully clamped in the open garden with a straw packing? 2. If sand would be better than straw? 3. If it would be better still to pack the Apples in clean, dry sand as one does Beetroots? I should be grateful for any information on this subject. I am most anxious to keep my Cox's Orange Pippins from shrivelling, as the crop promises to be good.

(Mrs.) M. H. SCOTT-NICHOLSON.

Barn Close, Carlisle.

[Do not attempt to keep your Apples in the way you suggest. The fruit is too valuable to expose to such rough-and-ready methods. In the case of No. 1, the musty decayed straw would soon communicate its vile flavour to the Apples. As to burying the fruit in sand, dry or moist, we have had no experience, but fear that decay and injury to the skin of the fruit would result by constant pressure and roughness of the sand. What we have to guard against in the storage of Apples is a too dry and too warm atmosphere drying up the vital juices of the Apples by too rapid evaporation. A cool cellar is an excellent place in which to store Apples, provided the air can be kept moderately cool and moist. We suggest that these conditions could be secured in your cellar by admitting less air and by keeping the air moderately moist by occasionally sprinkling the floor with water. Do not let straw or hay go near the fruit; a layer of paper is the best thing to put under it. The best way of keeping your Cox's Orange Pippins and other choice varieties is by wrapping each Apple separately in tissue-paper and placing it on a shelf or in a drawer under conditions as above.—ED.]

NOTES ON VEGETABLES

THE present spell of dry weather adds greatly to the difficulties of vegetable production, entailing much labour in watering, surface stirring of the soil and mulching, all of which are necessary to ensure the best results. So many amateurs have a mistaken notion about supplying water to vegetable crops; they think that if once they begin

to water a certain growing crop, they must continue, or they do more harm than good. This is quite wrong. It is much to the benefit of any crop to receive one thorough soaking at its roots than to have none, especially if due precaution is taken to conserve that moisture in the soil by mulching the surface with such material as manure, decayed vegetable refuse, short grass, leaves, or even straw. The smaller-growing crops, like Cabbage, Cauliflowers, Carrots, and so forth, are much benefited by having the surface soil deeply stirred with the Dutch hoe.

Cabbage.—A sowing for the main crop should be at once made, if not already done, of such varieties as Harbinger, Ellam's, Flower of Spring, and Emperor. If the weather continues dry, some trouble may be experienced in inducing the seeds to germinate freely if due precaution is not taken of well soaking the soil overnight and sowing the seeds in deeply dug soil the next morning. Apply some shading material until the seedlings emerge through the surface, then gradually inure the plants to light to induce stockiness, keeping them well supplied with water to accelerate growth.

Spinach should now be sown for the spring and early summer crops. The idea that only the Prickly variety should be sown at this season is wrong; the Round variety is equally good. Draw drills 2 inches deep, 15 inches apart, and well soak them with water previous to sowing the seed thinly, which will hasten the germination.

Late Peas should be well watered and mulched to prevent mildew attacks.

Runner Beans should be encouraged to fruit freely by daily pickings of the Beans, copious supplies of water and heavy mulchings of long manure. This crop is benefited also by syringing the leaves in the evening.

Tomatoes in the Open.—Plants growing against walls need copious waterings, especially after a good "set" of fruit is obtained. All side shoots, too, should be pinched off, concentrating the whole energy of the plant into the one stem. Until the



3.—POOR TREES, THE RESULT OF BEING GRASSED RIGHT UP TO THE STEMS.

fruit commences to colour, it is not necessary to cut away the leaves, as some think should be done. Unless the plants are growing weakly and carrying a heavy crop of fruit, stimulants should be given sparingly. If the plants are induced to grow too luxuriantly, or should a spell of cold, sunless weather set in towards the autumn, disease is much more likely to attack the plants, all too often ending in failure to ripen the fruit. Plants fruiting in pots should receive stimulants liberally when carrying full crops; the side shoots should be pinched off closely, and the leaves shortened back to admit more light to the fruit.

Potatoes.—Early and second-early varieties have gone off rather quickly in the haulm, owing mainly to the cold, sunless weather experienced in June. Especially is this noticeable where the same seed has been used for several seasons in succession. Such results all the more emphasise the necessity of an annual change of seed. Carefully lift the early and second-early varieties, dispensing with such sorts as are not of the best, as nowadays, with so many excellent varieties to choose from, there is no need to grow any but those of the very best quality. What I mean by "quality" are those sorts that cook well, are mealy, white in colour, and with superior flavour. Far too much preference is given by some growers to sorts that are shapely in tuber and handsome in general appearance, but they may not be at all desirable when tested by their cooking results. When lifted, the tubers should be graded for the various uses. Seed size should average from 1½ oz. to 2 oz. in weight. They should be stored in some cool, airy shed for the present. It is not at all necessary to expose them in the open until they become green, as was formerly the idea.

Cauliflowers "turning in" need attention to preserve the heads of a pure white colour, which adds so much to their appearance. Crack the leaves inward over the heads, or, what is better still, tie the leaves together at the top. Copious supplies of water to the roots, with liberal mulchings of long manure or leaves, will assist the formation and increase the size of the heads.

Parsley.—Make a sowing on a warm border for winter and spring use, or, better still, in a frame with the lights off until winter arrives, where there is difficulty in preserving this crop through the winter months.

Carrots of the Short Horn type may be now sown on a warm border, following early Potatoes; such roots will be esteemed during the autumn months. Radishes and Lettuce should be continually sown in small batches in well-watered drills to ensure quick growth.

Swanmore.

E. MOLYNEUX.



2.—TWO ROWS OF APPLE TREES, ONE IN CIRCULAR BEDS AND THE OTHER IN THE OPEN QUARTERS.

IN A HAMPSHIRE GARDEN

NOTES ON SOME OF THE NEWER ROSES.

I NOW pass to Messrs. S. McGredy and Son of Portadown; their new Roses of 1913 were five in number, all of them of the decorative class. Rosarians had become accustomed to expect something out of the ordinary from these raisers, and among the five was to be found the beautiful

Old Gold, one of the finest of our home decorative Roses. It has become so popular and most rosarians now grow it that any detailed description of it is unnecessary. It is at its best in the half-opened bud, and fully blown flowers must not be left on the plant, as they very much detract from its beauty. It has excellent lasting powers when cut, and there are few better Roses for table decoration. It flowers steadily all through the season and is an excellent grower, with a good habit and very beautiful foliage. Its parentage is unknown to me, but it has probably some Pernetiana blood, and possibly the other parent was Irish Elegance. Mr. McGredy very early saw the scope in Pernet-Ducher's cross and fertilised with its pollen, and some of the results are to be found in at least three out of the five Roses that he sent out that year, Mrs. F. W. Vanderbilt and Mrs. C. H. Peirson, besides Old Gold, showing some of its marked characteristics. He has succeeded, too, in breeding out some of the worst faults, such as weakness of constitution, leading to dying back of whole shoots, but has retained, and in some cases enhanced, the wonderful colours they added to our Roses.

Mrs. F. W. Vanderbilt is a very beautiful Hybrid Tea of fairly vigorous growth, with an extraordinary variety of colour in its flowers—I venture to think very few could describe it accurately—orange apricot with red shading on the outside of the petal in the bud, becoming coppery yellow to pink in the open flower. A bed of it showing all stages from bud to full-blown Rose is a beautiful picture. It received the gold medal of the National Rose Society and it has been growing here since 1911.

Mrs. C. H. Peirson is an ideal bedding Rose of compact, dwarf growth, every shoot producing a flower. It is less brilliant in its colour scheme than Mrs. Vanderbilt, being more of a self, but a self composed of so many colours that it cannot be described by a single word. Fawn, salmon and apricot are all there. The flowers, too, are not quite so large as those of Mrs. Vanderbilt, but are very uniform in size, colour and shape. It is a particularly neat, tidy bedder; altogether a delightful Rose of much merit. It received the gold medal of the National Rose Society, and makes a neat standard.

Lady Mary Ward.—Reminiscent of Lady Roberts at its best, this Rose is even more beautiful, a marked feature being the distinct veining in the petals. Its colour is deep orange, shaded with almost an old copper tint. It is a good pointed flower, fairly free flowering, but by no means vigorous in growth; in fact, its habit is its weak point. Otherwise it is an acquisition and a delightful flower in an art shade that is quite distinct among Roses.

Edith Part—the last of the five, but by no means the least to be desired—unlike Lady Mary Ward, is a vigorous grower of good habit, yet not too gross. It belongs to the section of bicolor Roses after the style of the old Grand

Lady Mary Ward—an extraordinary set to be the product and output of one nursery in one year, but not perhaps to be wondered at when one has seen the extent of the hybridisation carried on by the raisers.

Southampton.

HERBERT E. MOLYNEUX.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

Figs.—These will soon commence to ripen and must be protected from birds and wasps. Ordinary netting may be employed against the former, and in addition to destroying nests of the latter, bottles partly filled with syrup and water can be placed in suitable positions. The bottles should be emptied at frequent intervals and refilled. Remove all superfluous growths on the trees, retaining those of medium strength. The roots must not become dry, but where the fruit is ripening, the trees must not be over-watered.

Late Plums.—These should be allowed to remain on the trees as long as possible, as they are very acceptable when much of the other fruit is gone. Protect the fruit in a similar way as advised for Figs.

The Kitchen Garden.

Winter Spinach.—A good breadth of ground should be sown with Winter Spinach, and a smaller sowing made a week or ten days hence. Sow the seeds in shallow drills 18 inches apart, and if the soil is dry, the drills should be made moist a few hours before sowing. When the seedlings are large enough they should be thinned slightly, and a watch must be kept for slugs, which, if left unmolested, would soon devour the crop. Frequent dustings of lime, soot and wood-ashes will destroy these pests. Hoe the ground occasionally to keep down weeds and encourage healthy growth.

Turnips.—These will require thinning in the early stages of their growth, and then the soil should be hoed at intervals. A small sowing of Green Top Stone may be made, and should the weather be favourable, the bulbs will come in very useful next spring.

Vegetable Marrows.—Plants which are bearing well must be fed liberally with liquid manure or a little fertiliser. The productiveness of the plants will be prolonged if worthless growth and dead leaves are removed and

the fruits cut before they become a great strain on the roots.

The Flower Garden.

Roses on their Own Roots.—I am convinced that many of the stronger Roses and those of rambling habit are much better on their own roots. The sucker nuisance is abolished, and every strong growth we get from the base is welcome. Cuttings of half-ripened shoots may be inserted in sandy soil at this season. Place the pots on a mild hotbed or in a propagating-case, when they will form roots readily. Harden off gradually, and pot off singly in a loamy compost.

Antirrhinums.—If the seeds are obtained from a reliable source, these are excellent plants for bedding purposes. Where plants are required in flower during the early summer months, the seeds may be sown now, and they germinate



ROSE MRS. F. W. VANDERBILT.

Duc Adolph de Luxembourg, but holding its head erect. It was for two years described in the National Rose Society's catalogue as honey yellow, but, as a matter of fact, it is brick red on the outside of the petal, with a lighter shade of flesh pink on the inside, and it is only towards the base one gets that yellow orange tint that is the common property of so many of the Hybrid Teas. It is very free flowering, keeps its colour, and will, no doubt, in time displace all similar varieties, such as Mrs. E. G. Hill, &c. Here are five good decorative Roses of real merit. Placed in order one would put them, perhaps, as follows: Old Gold, Mrs. F. W. Vanderbilt, Edith Part, Mrs. C. H. Peirson and

readily in a cold frame. When large enough they may be transferred to nursery beds, or pricked out in boxes of fine soil.

Hedges.—Both evergreen and deciduous, should be trimmed for the last time this year. All those with large leaves, such as Aucuba, &c., should be cut back with the secateurs, but Yew and Privet may be clipped with the shears.

Colchicums.—These delightful autumn-flowering bulbs may be planted now or during the next three weeks, planting the bulbs about 3 inches deep. They are not particular in regard to soil or position, and are well adapted for naturalising in grass, especially in close proximity to the rock garden.

Plants Under Glass.

Freesias.—A good batch of Freesias should be potted up at intervals during the next two months. Eight or ten bulbs should be placed in a 5-inch pot, using a mixture of sandy loam, leaf-mould and decayed manure. Place the pots in a cold frame, and grow the bulbs cool to promote a sturdy growth.

Cyclamens.—Cold frames with the lights removed, excepting during heavy rains, will suit Cyclamens during the next few weeks. These plants enjoy the heavy dews that we usually get at this period of the year. If the frames occupy a sunny position, it will be necessary to shade the plants from strong sunlight. Keep a sharp look-out for aphids, or the young leaves will be crippled.

Fruit Under Glass.

Melons.—Plants growing in frames will require careful attention as the fruits approach maturity, if we are to get the best flavour. Close the frames early in the afternoon, and the atmosphere should be less moist than hitherto. Raise the fruits on inverted flower-pots, and cut away any foliage that prevents the sunlight reaching the fruits. When they begin to ripen, leave a little air on both night and day.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)
Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS

The Kitchen Garden.

Seeds.—A sowing should be made this week of Cauliflower, Cabbage, Savoy and Brussels Sprouts for spring planting. The Cauliflower, which should be Early London or some other standard early variety, will require to be pricked out, as soon as it is large enough to handle, into a position where it can be protected in winter, preferably in a frame with open sides, on which lights can be placed before severe weather sets in. The others are generally hardy enough to stand the winter in the open, but I find they do best if placed in nursery lines about the end of October. The seeds should be sown thinly in lines on poor ground made moderately firm, and protected with herring-nets from birds.

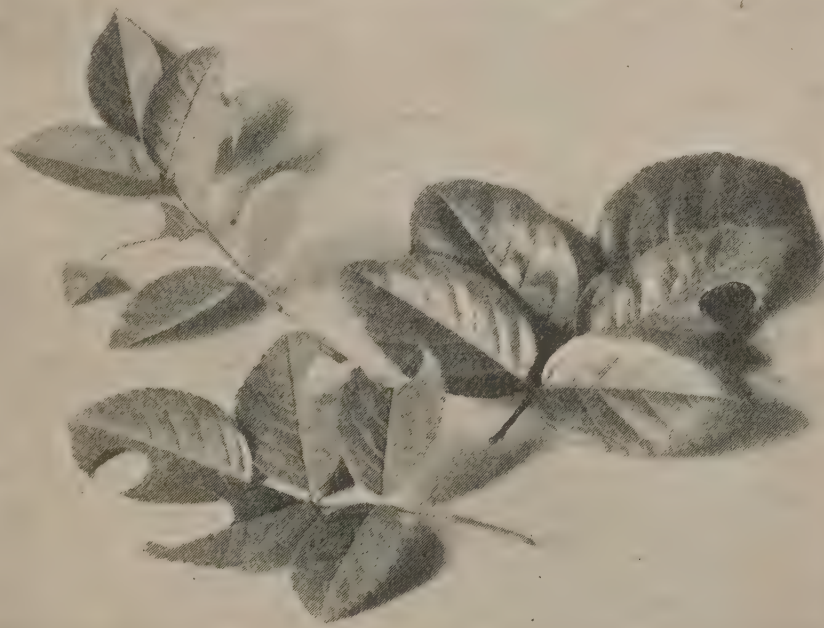
Mushrooms.—It is becoming more and more difficult to procure sufficient quantities of horse-manure for raising Mushrooms, so that with reduced supplies it is necessary to collect for a much longer time before getting enough to form a good-sized bed. The manure will not take so long to dry at this season, but it must be turned frequently to prevent it getting overheated. The beds formed in the open will continue to give a supply for some time yet, and natural-grown Mushrooms in the meadows will, if regularly gathered, provide sufficient for a stock of ketchup. A bed should, however, be placed in the Mushroom-house soon now as a commencement of the winter supply. When the manure has been sufficiently dried, it should be rammed into the beds as firmly as possible; its correct condition for working will be noticed in the process of ramming. When it appears damp but springy (neither dry nor wet) a ground thermometer should be inserted, and when it has risen to the maximum and fallen again to 85° the spawn may be planted in pieces

the size of a pigeon's egg about 4 inches apart and 2 inches deep, afterwards covering the whole with a half-inch layer of fresh loam made moderately firm and quite smooth. The heat generated from the fermenting manure will generally be sufficient without the aid of fire-heat until cold weather sets in. Success in Mushroom culture can only be guaranteed if a properly constructed house is provided.

The Hardy Fruit Garden.

Pests.—Besides the attacks of birds, wasps and earwigs on the ripening fruit of wall trees, the present is the season when woolly aphis or American blight usually spreads rapidly on the Apple trees. The best method of arresting its progress at this time, when spraying with poisonous substances is not advisable, is to paint over the affected parts of the bark with methylated spirit, paraffin (applied sparingly) or Bentley's Orchard Spray Fluid.

American Gooseberry Mildew.—After four or five years' continuous effort to overcome this destructive pest, it is gratifying to be able to report a clean crop this season so far. After using the liver of sulphur and tipping the shoots as recommended by the Board of Agriculture for two seasons, with indifferent results, I commenced using a lime sulphur wash, to which I give the credit of arresting the progress of the mildew in



ROSE LEAVES DAMAGED BY THE MASON BEE.

its early stages, its effects being quite apparent after the first application. I must, however, add that several varieties will not stand the spray at the strength recommended—the bushes became defoliated and subsequently died; but other varieties stand it quite well and are now carrying heavy crops. These were sprayed as a prevention once only this season, when the buds were about to burst into leaf.

Fruit Under Glass.

Grapes.—In houses where the berries are colouring, top and bottom air should be given night and day, reducing it, of course, at night. Remove all lateral growths so that the maximum amount of air and light may reach the main leaves and buds. Muscats require more direct light than black Grapes. To enable them to take on the deep amber colour, leaves directly shading the bunches should be pulled aside.

Early Fig Trees in Pots.—Any repotting that is necessary may be done now. Using a mixture of good loam, bone-meal and old mortar rubble. Figs required for early forcing should be stood out of doors, plunging them in ashes, if possible. The repotted trees may require shading from bright sun for a few days and to be syringed regularly, but must be watered carefully.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)
Glamis Castle, N.B.

ANSWERS

TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

ROSE GARDEN.

ROSE FOLIAGE DAMAGED (Mrs. F.).—The insect is known as the slugworm. Spray the plants well on the under side of the foliage early in the year, and continue at intervals of about a week. Nicotine wash is the best insecticide for this pest.

ROSE FOLIAGE EATEN BY INSECTS (F. O. and C. R.).—The damage is caused by the mason bee, and we can only advise you to try to find out its nest, which will probably be found in the crevice of a wall or building close by. The bees may be seen on a fine morning hovering over the plant, and may be caught by means of a syringe, directing the spray of water forcibly at the insect. These bees will line their nests with the portions of foliage cut out of the leaflets.

FLOWER GARDEN.

SWEET PEAS SHOWN BY MR. T. STEVENSON (X.).—The thirty-four varieties of Sweet Pea shown by Mr. T. Stevenson in the Burpee Cup Class were Clara Curtis, King Alfred, Warrior, Hercules, Mrs. Cuthbertson, Royal Purple, Florence Wright Spencer, Elsie Herbert, Mark's Tey, Jean Ireland, King Manoel, R. F. Felton, Peace, President, Victory, Elfrida Pearson, Thomas Stevenson, Edith Taylor, Charity, Helen Chetwynd Stapleton, Hope, Golden Glory, King Edward Spencer, Rosabelle, Rosy Rapture, Constance Acomb, Honour Bright, Lady Evelyn, Barbara, Edward Cowdy, Robert Sydenham, Mrs. Arthur Stevenson, Constance Hinton and Austin Frederick.

PLANTS FOR BACK WALL OF VINERY (Vinery).—The back wall of a vinery is by no means an ideal place for flowering plants, and Roses could not be expected to thrive there. If a good, well-drained border is made, Camellias might succeed; while another likely subject is the Australian Hibbertia dentata, whose oval-shaped, evergreen leaves are of an olive tint, the young foliage and growing points of the shoots being red. The yellow flowers, about 2 inches across, are borne during the first three months of the year. Good examples of Abutilon may sometimes be seen under such conditions. They possess the advantage of growing very quickly and of flowering over a lengthened period. A close-fitting evergreen that, if kept syringed, will attach itself to the wall after the fashion of a miniature Ivy is Ficus repens, but the flowers are of no account.

MIXED HERBACEOUS BORDER (Viola).—We sympathise with you greatly in the circumstances, more particularly in your fondness for a garden and flowers which your invalid condition prevents you from enjoying. From the description the whole affair appears in a hopeless state of confusion, which, unfortunately, can hardly be remedied now, owing to the lateness of the season. The mixing of scarlet Geraniums and Roses of red and pink shades would be most incongruous, and little wonder the former "swear" at the latter. In such borders Geraniums should never be given place nor even thought of. Even now we would prefer to see a gap or two than be further tormented by their presence. Roses, also, we do not like in such borders; they are best in beds apart, and, seeing there are so many good perennials, are not a necessity—certainly not in keeping with the usual run of border perennials. The whole arrangement appears in such utter confusion that we fear we can help you but little. The best advice in other circumstances would be to reorganise the whole, obtaining the help of someone expert in these matters to carry out the work. Ivy-leaved Geraniums, just as all others, should be kept out of such a border. The places of the other Geraniums—if you prefer to go on patching for a time—could soon

now be filled with purchased plants of Canterbury Bells in blue, pink, white, &c. Half a dozen or more of each shade, grouped, would provide a good effect. Anemone japonica is impatient of removal, and takes time to re-establish. Permanent edging plants may be formed with *Campanula muralis*, *Aubrietia* Dr. Mules, or *Saxifraga Clibranii*, or semi-permanent edgings—i.e., lasting two or three years with annual shortening back—with *Viola cornuta atropurpurea*, *V. c. alba*, or such as *Bullion* (golden), *Ardwell Gem* (primrose yellow) or *J. B. Riding* (rose lilac), among others. If the borders are large enough—their size, unfortunately, is not stated, hence we can only generalise—summer and autumn effect could be secured by planting *Gaillardias*, *Campanulas*, *Aster acris*, *A. Amellus*, *A. laevigatus*, *Michaelmas Daisies* in variety, *Sunflowers*, *Red-hot Pokers* and much besides; while for an earlier display *Delphinium*, *Pyrethrum*, *Coreopsis* and *Iris* might join forces. Just what would be best could only be decided with personal knowledge of the position, though if you can give us fuller particulars we will do our best to help you further.

TREES AND SHRUBS.

PLANE TREE LEAVES (*E. T. L.*).—From the appearance of the Plane tree leaves sent for examination, the trees seem to be suffering from drought. We advise you to give them a good watering, then apply a surface-dressing of half-decayed leaves or well-rotted manure to the surface of the ground, keeping it a few inches from the trunks of the trees. Another year top-dress early before the ground has a chance of becoming dry. Do not allow grass to grow close to the trunks for several years at least.

PRUNING SHRUBS (*A. H. R.*).—The methods of pruning for the plants mentioned are as follows: *Hydrangea paniculata*.—Cut the previous season's wood back to within two or three eyes of the base in February each year; then, when new shoots appear, restrict them to a reasonable number by removing surplus ones when a few inches long. *Ceanothus Gloire de Versailles*.—Prune in February, cutting the strongest of the previous year's shoots back to within 6 inches of the base and weak shoots back to within a bud or two of the base. *Spiraea ariæfolia* does not require regular pruning; an occasional thinning in winter is all that is required. *Ribes* do not require regular pruning unless they are to be kept dwarf. In such cases prune as soon as the flowers fade. *T. pentandra*, however, which blooms in July and August, is sometimes pruned hard back to within a few buds of the base of the previous year's wood in February. *Clematis May Queen* could be planted to grow over the *Laburnum*, or *Wistaria chinensis* might be used. Plant in good soil near but not close to the trunk of the tree, train the branches into the desired direction, then allow them to develop naturally. Regular pruning will not be necessary.

THE GREENHOUSE.

TURNING HYDRANGEAS BLUE (*Mauve Poppy*).—Yes; it is quite true that alum will turn *Hydrangea* flowers blue, but this does not take place immediately. Continue to water the plants at the rate of a teaspoonful of alum to a gallon of water.

THRIPS ON ODONTOGLOSSUMS (*F. W. W.*).—The fact that your *Odontoglossums* are so badly attacked by thrips would indicate that the atmosphere has been too dry for the welfare of the plants. You speak of the house being damped on the floor and stages three times a day in hot weather, but you say nothing as to the plants being sprayed overhead with pure rain-water at the same time. This may be done without injury to the flowers, and will confer a great benefit on the plants. Vaporising with the XL All Vaporiser will, if persisted in, destroy the thrips without injuring the flowers, provided it is not used beyond the proper strength. We should certainly advise you to resume the vaporising, and think you would find the result successful. No fire-heat is needed during hot weather. It will frequently be found that the thrips make their way into the heart of the young growths, where some of them may escape the vaporising. In this case a small camel-hair brush dipped in insecticide will destroy them. During the present spell of hot weather thrips will make rapid headway.

LEMON TREES IN ILL-HEALTH (*A "Garden" Reader*).—The fact of your Lemon trees losing their leaves, and even some of the smaller branches dying, would seem to indicate that their roots are in a poor state. The only thing that can be done is to induce a healthy condition of the roots. This may be effected by turning the plants out of their tubs and repotting them in some good sweet soil mainly consisting of loam, with a liberal sprinkling of broken brick rubble and sand. When the plants are turned out of their tubs it will probably be found that the drainage is at fault. As much of the old soil as possible should be taken away before they are re-tubbed, and any decayed roots cut off. The after-treatment should consist in keeping the plants shaded and frequently syringed, while the watering must be very carefully done. Even then success may not be ensured, for once Lemon or Orange trees fall into ill-health it is a difficult matter to restore them. Over-cropping may have had a good deal to do with the trouble. Do not use any stimulants till healthy roots are ensured. For this reason we should not advise you to use nitrate of soda in the present condition of the plants.

ECONOMY IN HEATING GREENHOUSES.—One hears much of economy in the garden as well as other things in these days, and as the time is here for ordering in a supply of coke, the wisdom of reducing the heating is uppermost in one's mind. I have lately seen the publication on this subject by the Royal Horticultural Society. I suppose the economy is for the benefit of the owner, and would be of no use, as far as coke is concerned, for the manufacture of munitions. I should like to know about this, and if a great reduction in heating expenses is generally being made. My gardener is of opinion that the valuable properties are taken out of coal in the manufacture of coke, and therefore, as far as the Government is concerned, it would be of no advantage. Will you kindly inform me?—(Miss) B. BIRCH REYNARDSON. [The recommendation to economise in heating houses for plants during the war is made not only in the interests of the owner, but because heating involves labour, both direct and indirect. It is probable that there are ample supplies of coke available for the purpose, as coke is not very largely used in munition work, and much coal is distilled for obtaining a variety of things that are; but the distribution of the coke entails the use of conveyances and the service of men who might frequently be more usefully employed in other directions. In many large gardens the heating is being reduced to a minimum.—ED.]

KITCHEN GARDEN.

DISEASE IN TOMATO STEM (*"Garden" Reader*).—The Tomato stem arrived in such a dried-up condition and so much covered with soil that it was quite impossible to form any idea of the cause of the trouble from an examination of the plant itself. From what you say regarding it, we imagine it is suffering from a form of collar rot, or, more probably, sleepy disease due to a fungus called *Fusarium Lycopersici*. This fungus gains entrance to the plant from the soil, and it would be well to sterilise the soil thoroughly before using it again; in fact, virgin soil is much to be preferred to old potting soil or old manure. No cure is possible; since the fungus completely fills up the vessels along which water is conveyed.

ASPARAGUS FAILING AND CABBAGES CLUBBING (*Torquay*).—Your Asparagus beds are evidently worn out. Your best way will be to prepare new ground in some other part of the garden in autumn, by trenching and heavily manuring, ready for planting with new roots in the following March. Write us again at the end of February, and we will gladly help you to form and plant your new beds. Should you wish to keep the old beds until the new ones come into bearing, the best thing you can do is to clear them of weeds at once and give the Asparagus roots a good soaking of manure-water, and afterwards a dressing of manure (say, 3 inches deep) on the surface of the soil over the roots to keep the soil moist. Keep the beds free from weeds afterwards. Cauliflowers and Sprouts badly grubbed.—According to the specimen roots sent, your Cauliflower and Sprouts have suffered from a severe attack of what is termed "clubbing" in the Cabbage tribe, caused by the maggot of the Cabbage fly. The best thing you can do is to dig the ground over deeply, and apply at the same time a heavy dressing of soot and lime to the soil, then plant with Turnips, Winter Spinach or Spring Onions, giving the ground a rest from Cabbage. If you must plant the land with some of the Cabbage tribe, make shallow drills and water them thoroughly with strong soot-water before planting, and also steep the roots of the plants in soot-water made into a paste, adding a wineglassful of paraffin to a quart of the paste. By this means you may clear away the grubs for a season.

MISCELLANEOUS.

BOOKS (*J. C. L.*).—The three books are usually obtainable at a good second-hand book shop like Quaritch's. They, however, may not all be in stock at the exact time they are wanted. Prices vary considerably, according to the state of the volumes and the edition. We hope to devote a column to a description of these books in a week or two.

A TROUBLESOME POND WEED (*D. W., Surrey*).—The pond weed you refer to is very common on ponds where the water has little movement. Agitation of the water, such as is obtained by a constantly running stream, is the best means of eradicating it. We do not know of any way of killing it by adding a chemical to the water which will kill the weed without killing plants as well. The only way we can suggest is to keep raking it out, unless you have a means of emptying the pond and refilling it with fresh water occasionally. The Newberry is quite distinct from the Loganberry; some mistake has been made by the nurseryman who supplied the plants.

PLANTS FOR GUNNERA BED (*A. H. Rydon*).—It is somewhat difficult to advise you, as you say nothing of the size of the bed or the amount of room at disposal for planting. If the Gunnera is doing well, which is unusual for it in a dry position, it will attain to a large size presently, when its leaf-spread would be opposed to much near planting. In the circumstances it would be better if you gave us particulars of the present dimensions of the plant and also the size of the bed. Laxton's Latest Strawberry should suit you quite well. It is probably the largest and latest yet introduced, dark, and of fine flavour. Givon's Late Prolife, one of the best of very late sorts and a success on most soils; and Waterloo, a very dark, round, late variety, are also valuable among late sorts.

GETTING RID OF SLUGS (*Heather*).—The fact that our correspondent and his wife have accounted for 2,800 slugs in seven days would appear to suggest that the remedy is in their own hands. Slugs cannot—or do not—multiply at that rate, and "Heather" is bound to win if he still persists. Wet sacks laid about here and there in shady places would cause the pests to congregate, when a little salting down—the merest sprinkling—will dispose of them. The Vernon-Hill Slug Traps are very useful, and a few of them would account for large numbers of the pests. If you were to dress the land with one of the soil fumigants, as Slugicide; you would get rid of many in that way. The pests, however, secrete themselves beneath tiles, bricks, dwarf-growing herbage and much besides, and you must tempt them from their hiding-places by any means at your command. Hence we say persist in the catch and kill method, adopt the sack trick and the Vernon-Hill Slug Traps, and lay down baits of bran covered by sacks or boards in order to tempt them from their hiding-places. This done, a sprinkling of dry salt will finish them off effectually.

NAMES OF FRUIT.—*W. K. T. L.*—1, Irish Peach; 2, Lord Suffield (very small).

WAR FOOD SOCIETIES

SINCE the outbreak of war the Board of Agriculture and Fisheries have issued a number of leaflets with the object of affording some guidance to allotment holders, gardeners and others who desire to increase their supplies of home-grown food, but printed information will not enable an inexperienced person to make the most of his opportunities. Many who would gladly add to their supplies of food do not know how to set about getting possession of a plot of ground, or how to buy suitable manures, or how to select the best varieties of Potatoes, Cabbages, &c., for the purpose they have in view. To assist such people the Board think that local societies might be very useful.

The objects of such societies should be to secure an increased production of food, both by improving the methods adopted in existing gardens and allotments, and by obtaining additional land for the use of those who are willing to cultivate it.

Most country villages are well supplied with gardens and allotments, but their management often leaves much to be desired, and they should be capable of producing much more food under skilled guidance and advice. In urban and suburban areas the allotments are usually well managed, but as a rule there are too few of them; and war food societies might do most valuable work in such areas by obtaining the use of additional land for cultivation. Excellent work has been done in this direction by the Home Food Culture Society, Victoria Viaduct, Carlisle, which has obtained from landowners in Cumberland and Westmorland a number of plots of land free of rent, rates and taxes for use as allotments. The society provides technical advice and organises a supply of seedling plants. Similar work is being done in London by the Vacant Land Cultivation Society and by the Church Army.

How to Start a Society.—The initiative in forming a society may be taken by any local resident, but it is desirable in all cases to secure the co-operation of members of the Town, Urban District or Parish Council, which is the authority responsible for the provision of allotments. The Chairman of the Local Authority might be invited to call a meeting of local residents, allotment holders, &c., to consider whether a society should be formed and, if so, to appoint a small committee. Where there is already a gardening or allotment society in existence, it might be used as a nucleus. The Agricultural Organisation Society, Queen Anne's Chambers, Tothill Street, Westminster, London, S.W., will be glad to advise or assist in the formation of societies. The registration of societies under the Industrial and Provident Societies Act or the Friendly Societies Act is not essential.

THE GARDEN.

No. 2336.—Vol. LXXX.

AUGUST 26, 1916.

NOTES OF THE WEEK

HOUSEWIVES are recommended by the Board of Agriculture to use corn syrup (otherwise glucose) this year in their jam-making, in order to meet the diminished supplies of sugar. The Plum crop promises to be large in most parts of England, but the supplies of sugar available are only three-quarters of what they were last summer. Not more than one part of corn syrup should be added to two of sugar, and the weight of the sugar and syrup should be approximately equal to the weight of the fruit used.

How to Get Corn Syrup.—Although corn syrup contains about 20 per cent. of water and is not as sweet as sugar, it makes jam "set" better and prevents recrystallisation, a common fault in home-made jams. The present wholesale price of corn syrup should permit it to be sold retail at not more than 4½d. a pound. It can be obtained from some manufacturers in 14-pound tins at about that rate, and from others in one hundredweight kegs. The Board of Agriculture (4 and 5, Whitehall Place, S.W.) will send a list of the principal firms to any applicant who wishes to make home-made jam in the manner recommended.

The Delivery of Bulbs.—The delivery of bulbs is bound to be later than usual this season owing to the shortage of labour in nurseries. Our bulb-growers in all parts of the country are doing their level best, but, speaking generally, they are a fortnight behind, and in some cases they have not yet finished lifting the bulbs. One grower writes: "We had to give up lifting until the rain came, for the soil turned up in lumps of about a quarter of a hundredweight and it was impossible to get the bulbs out." We ask readers not to be too hard on the dealers if supplies are not delivered as early as in normal years and with the same promptitude of despatch.

Irish-Grown Bulbs.—Referring to our report on the recent Dry Bulb Show (issue August 12) in which the bulbs shown by the Donard Nursery Company, Newcastle, County Down, are classed as "mother" or "breeder" bulbs that have been planted two or three years and left undisturbed, this firm assures us that in no instance had the bulbs been in the ground more than two seasons, and that many of the varieties were only down one season. The heaviest bulb ex-

bited was one of the variety Seagull; this with its four offsets weighed slightly over one pound, and was planted late last September. True, the bulbs have not such a nice appearance when they have long necks and rough skins; but, after all, they are grown for the sake of the flowers they produce and not for the shape of the bulbs.

Gunnera manicata.—There are few more effective waterside plants than *Gunnera manicata*, for its bold, handsome foliage is unmatched by any other occupant of the outdoor garden. In general appearance it is suggestive of a giant

flowering shrubs should plant a collection of the hardy Hibiscuses. Although the flowers do not possess the gorgeous beauty of the tropical sorts, they are much more striking than those of the most hardy shrubs, and, unlike their hothouse congeners, which are flowers of a few hours, the syriacus varieties are valuable cut flowers. Besides these merits, there is the additional one of thriving under partial shade. The ideal position is facing north-west, with a backing of deciduous trees, in loamy soil.

Single and Double Varieties.—Although most nurserymen give predominance to standards in

their catalogues, the bush forms are most suitable, and these, which may be purchased quite cheaply, could be planted at the present time, provided there is no delay. Of the many varieties, the best doubles are plenissima, white with crimson blotch; bicolor hybrida, of similar colouring, but darker foliage; Red Pompon; Leopoldii fl.-pl., brighter in colour than Red Pompon; pæoniflorus, rosy magenta; puniceus plenus, rose coloured; and luteo-pleno, pale yellow buds and crimson blotch on the fully open flowers. *Hibiscus syriacus*, the original species, bears large, showy purplish flowers with crimson centres, and besides this, such other singles as alba; cœleste, blue with reddish blotch; and rubis, crimson with darker blotch, are very desirable.

"One Way of Doing it."—We recently came across a number of the *Gossip of the Garden* in which a list of the best new Roses for 1861 was given. They were all, by the way, French. One raised by Ducher had a formidable name, so much so that it evidently puzzled the pens of the correspondents who sent in lists, the result being that the Editor received Zachargevsky, Zachargersky and Zachargervsky as the name of the General after whom it was called. Writes our editorial Alexander:

"In my mouth this indomitable hero—be he who he may—will pass for neither more nor less than General Zachary." The old lady in a village near Shrewsbury may be excused after this for asking the donor of the seed to come and see how nicely "Alfonso Whisky-and-Soda" was blooming in her garden. Alonso Warscewiczii is expecting too much from anyone not a botanist.

* * * Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.



HIBISCUS SYRIACUS PLENISSIMA.

Rhubarb, the large, rounded leaves being borne on long, stout stalks, but the foliage lasts in good condition longer than that of any of the Rheums. *G. manicata* should be planted in rich, loamy soil just out of the water, but where its roots can easily enter it. The young leaves should be protected from late spring frosts, and it is a wise plan to remove the inflorescences as they appear. An annual dressing of cow-manure is attended by good results.

Hardy Hibiscuses.—Those who wish for uncommon and beautiful late summer and autumn

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Bottling Pears.—In answer to "Anne Amateur's" enquiry, issue August 12, page 391, I write to say that the Pears were not preserved whole, but were pared and cut in half, and the cores were taken out.—H. DROOP.

Nemesias.—From observations I have made this season, it appears to me that these plants suffer less from being crowded than do a great many annuals. During a recent short holiday spent at that most charming of all country hotels, the Beacon, Crowborough, I noticed *Nemesias* flowering well and profusely round the bases of the garden arches, though very thickly planted; and at the present moment a panful of the plants—no more than an inch or so apart—is making a charming ornament in my greenhouse, the flowers quite of good size and the colours very fine.—F. H. C.

Pretty Effects in the Garden.—One of the prettiest combinations in the border is a large group of *Erigeron philadelphicus* and *Viola cornuta* (pale mauve). The two colours blend exceedingly well and the plants are in flower for quite three months. Another *Erigeron* which I am growing for the first time this year is *E. Quakeress*, for which I have to thank your note in *THE GARDEN* last autumn recommending it. Can you tell me its parents? Is it a chance seedling from *E. speciosus*? This latter is not worth growing beside *Quakeress*. I must certainly try a few plants of *E. B. Ladhams* this autumn.—L. BIGG-WITHER, *Birdwood, Wells, Somerset*. [*Erigeron Quakeress* was raised by Mr. G. D. Davison, Westwick Gardens, Norwich. It was selected as the best of a batch of seedlings raised from a cross (we do not know the parentage) in 1906. On at least two occasions it has been submitted to the floral committee of the Royal Horticultural Society by the raiser, but for some reason this good plant has never received an award—possibly it has not been shown in its best condition. Be this as it may, it is justly considered one of the best, if not the best *Erigeron* in cultivation.—ED.]

On Preserving Runner Beans, Peas, Carrots and New Potatoes.—I am almost in tearful despair about my Runner Beans. I have such a splendid lot coming on, I am sure we shall not be able to eat them all fresh, and nowhere can I get a reliable recipe for preserving them. I have tried several recipes, but found the Beans either too salt or else tasteless. Beans are too bulky to bottle. Can any reader help me? I intend to try bottling Peas, and also the little "thinnings" of the Carrot-beds, by my fruit bottling recipe, for I feel fairly confident they will turn out all right and make agreeable additions to the winter vegetables, of which I am providing a varied and goodly store. I have had the following plan for preserving new Potatoes just sent to me by a good cook, who recommends it as really satisfactory. From "M. C.": "Potatoes kept new four months, and they were good. They were put in a tin with clean straw. A little straw, then a layer of new Potatoes; then more straw,

more Potatoes, until the tin was full. Then it was closed tight and buried in the ground. The Potatoes were nice, and really tasted as new." I am going to bury a tinful for Christmas.—ANNE AMATEUR.

Bottling Peas and Preserving Beans.—There is no trade secret in bottling Peas, nor is there any special Italian way of preserving them. The industrial process and the household process are both done on the same principle. With regard to Peas, failure is often due to lack of precaution, as of all vegetables they are the most difficult to be so treated. The process does not matter, provided the sterilisation of the vegetables and the keeping out of new agents of fermentation and decomposition are ensured. The method we adopt in Belgium is as follows: Take sound bottles, large enough to hold a boiling of Peas. Wash them thoroughly and turn them upside down. Choose tender, young Peas, taking care to reject unsound ones; shell and fill the bottles up to



ERIGERON QUAKERESS, A HANDSOME BORDER FLOWER.

the neck. Do not add water to them, but on top put a dusting of salicylic acid. Close the bottles with good, new, boiled corks, and tie the corks strongly with a stout string, crossing four or five times. Put the bottles in a boiler and fill up with water. An important point is that the bottles should not touch the bottom of the boiler nor each other during the boiling process, which would cause breakage. Any mode of separating them will do, but in the country hay is often used. Boiling takes about 1½ hours. Often a dozen bottles are treated at once. If the corks are not strongly fastened they will blow out. The bottles are generally allowed to cool in the boiler, which prevents them cracking. When cool, the corks are sealed and the Peas will keep well till the winter. Peas preserved in this way are delicious. Young Broad Beans are preserved in the same way. Sealing is done as follows: The wax is put on the fire in an earthenware pan. When it has melted, the top of the bottle is dipped in and

the sealing is done. The wax must, however, completely cover the string. Here is a way of preserving French Beans that has been used with success for a long time. Take a glazed earthenware jar of a capacity up to five gallons. Clean thoroughly and turn it over to drain. After stringing, slice or break the Beans and mix them thoroughly with salt, and on the top of each layer of Beans again spread some salt. It may take a week or more to fill the jar, but this will do no harm. When full, put on top a good layer of Parsley, cover with slates, and press down with a heavy weight. When the jar is opened during winter or in spring, if it has not been well covered, the top layer of Beans may have a disagreeable smell. This layer must, in this case, be removed. The rest will be quite good. The objection has been raised that Beans preserved in this way are too salt. But when the Beans are wanted for cooking they must be washed in three or four successive waters, and then no trace of salt remains.

In this case well-formed Beans must be used, but not old, tough ones, as these are too hard.—H. V.

Rose Margaret Dickson Hamill.—Your correspondent Mr. A. H. Pearson asks a series of questions which are not easy to answer with that degree of completeness that I would wish. I do not know the conditions under which his Roses are growing; at the same time, those of my own are, I think, quite normal, but admittedly the best I can give them, namely, loam that was top spit from a meadow five years ago, cow and pig manure below the roots at time of planting, an annual top-dressing of Wakeley's Hop Manure immediately after pruning, with an occasional watering with liquid manure derived from a bag of soot and a bag of raw cow-manure allowed to soak for forty-eight hours in a 30-gallon water carrier, applied, say, once a fortnight, about half a gallon per plant. I use no artificial as a rule, but I did give my Roses a dressing of superphosphate of lime this year. I admit the result is that, while I do not get anything extraordinary in the way of growth, I do get very good colour; I think I may say without exaggeration unusually good colour, in the sense that my Roses are a better colour than the majority of those seen in other gardens; but whether this is due to climatic conditions or culture, or both, I

cannot say. Perhaps the note following Mr. Pearson's queries in the issue of *THE GARDEN* of August 12, by "Danecroft," advocating the use of the above-mentioned Wakeley's Hop Manure, may supply the solution; but if a Rose admittedly does well in (1) Ireland, (2) in Herefordshire, because the blooms of Margaret Dickson Hamill exhibited at the Royal Botanic Gardens all came from Messrs. A. Dickson's nursery at Ledbury, so that in this case it was not a question of Roses growing in Ireland being a better colour than they could possibly be in England (to my mind at all times a very doubtful proposition); and (3) in Hampshire, where, at any rate, it has very different climatic conditions to contend with to those of the North of Ireland, I know of no reason why it should not succeed equally well at Lowdham. Mr. Pearson is too experienced a cultivator to expect the flowers of late July and August to equal in colour and size the first blooms of maiden plants and cut-backs of late June. Margaret Dickson Hamill has been

constantly good with me, but I write only from personal experience of its behaviour here in Southampton, where it has been quite up to the standard of the flowers exhibited by Messrs. Dickson and which attracted the attention of Her Majesty Queen Alexandra, and which I am glad to note Mr. Pearson saw, so that he, at any rate, is aware how good it can be. If at present he has not succeeded in so growing it, he will permit me to say that I am sure it is only a question of time and suitable conditions of weather, which may have been as unkind in Notts as they have been congenial in Hampshire, or perhaps I had better say Southampton.—H. E. MOLYNEUX.

Pride of Madeira.—It may interest you and some of your readers to know I have succeeded in flowering some plants of *Echium fastuosum* (Pride of Madeira). The seed was brought to me two years ago, not from Madeira, but from Teneriffe, and it has done very well with ordinary greenhouse treatment. I have six plants, two of which have flowered. They made a very valuable addition to a cool greenhouse, the colour of the flowers being a most lovely blue.—CLARE HEATHCOTE, *Silverton Rectory, Exeter*.

Antirrhinums in a Shady Border.—For several years I have strongly advocated the extended cultivation of these plants. In some of the hottest borders, in sheltered corners, and quite open to the sun's rays I have seen Antirrhinums thrive and flower splendidly. In May last I noticed, while passing a garden near Christchurch, that some young plants had been planted in a border under large Oak and Elm trees. I recently passed the same garden and was surprised to see how well, in the circumstances, the plants were doing; they were fine plants and flowering splendidly under the trees. They form an object-lesson and prove how useful the Antirrhinum is.—AVON.



CISTUS LORETI, FLOWERS WHITE WITH CRIMSON SPOTS.

Yuccas in the Rock Garden.—The measured appreciation in THE GARDEN of July 29, page 372, reminds me of a striking effect I made a dozen or so years ago by planting some of these handsome plants in a large rock garden. Their erect habit and somewhat spiky leaves render them eminently suitable for the higher parts of the rock garden, where, if rightly placed, they also serve to increase its apparent size. On the upper slopes the plants should be kept to single stems, so that they stand sentinel-like, and space must be allowed for free expansion of the foliage; but on the lower ledges grouping may well be done, provided the rock garden is of good size. For these lower positions *Yucca recurva* and *Y. angustifolia* are the most suitable, but I prefer *Y. gloriosa* for the higher places. In the course of time *Y. gloriosa*, when planted as suggested by "C.," becomes top-heavy and falls a victim to the winds or even its own luxuriance. If left alone the heads gradually turn upwards again, and roots are generally made when the stem touches the ground. A bed of these fallen ancients when they have again raised their heads makes a singularly quaint and good effect on the edge of a lawn or in the shrubbery. I have one such bed in mind which is of large size, and where countless Daffodils spring up around and between them.—CECIL BARTLETT.

Cistus Loreti.—I quite agree with your note on the value of this plant, in my estimation the best of all its family. I do not, however, think it likely that it is a *ladaniferus-monspelienensis* hybrid. I have a hybrid between these two varieties which shows very different characters, having the rugose strap-shaped leaf of *monspe-liensis* rather enlarged, and the cupped flower of the same also larger, and with the claret spots of *ladaniferus*. In growth, however, it forms a rather tall-growing bush, less straggling than *monspe-liensis*, and it is generally quite a nice evergreen plant. The flowers, however, soon fall after opening, thus missing what is the great charm of *Cistus Loreti*. In regard to the unspotted form of *ladaniferus* mentioned by Mr. Buxton, this often turns up in seedlings of the spotted form.—E. A. BUNYARD.

The Myrtles and Myrtilla.

The Myrtilla (*Myrtus Ugni*) is one of the most beautiful shrubs at the present time, for it is bearing a profusion of its small white flowers. In the dead of winter it is again interesting, as it then bears a quantity of juicy, bluish black fruits which some visitors find very palatable. *M. Ugni*, often known in gardens as *Eugenia Ugni*, is a delightful evergreen from Chile, and although it is usually grown against a wall, I find that it thrives in an open situation on very heavy soil in company with *Myrtus communis* and its hardier variety, the Tarentum Myrtle. The Myrtle was a favourite plant of the ancients and was held sacred by them to the Goddess of Love. It is believed to have been



A SPRAY OF MYRTILLA (*MYRTUS UGNI*).

introduced to the Mediterranean region from Persia, and it was certainly one of the first shrubs brought to our islands from the Levant. There are many varieties of the Myrtle—the Italian, Roman, Thyme-leaved, Nutmeg, Box-leaved and others, all of them with sweetly scented foliage. As low wall shrubs, more especially under windows of the dwelling house and near to the doorways, these and the Myrtilla are worthy of extended use.—WEYLAND.

White Goat's Rue Uncommon.—Surely "Anne Amateur's" experience—see page 379 of THE GARDEN—not to have "come across" this variety "a dozen times in as many years" must be very exceptional, since it is one of the most frequently shown plants at local and other exhibitions that could be named, not in small bunches, but often enough in sheaves. In how many dozens of instances both it and the blue forms have been exhibited at the Holland House Show alone during recent years it would be difficult to estimate, to say nothing of the frequency with which it appears at the fortnightly meetings of the Royal Horticultural Society. At local exhibitions during July it occurs in at least 50 per cent. of the exhibits of border or hardy flowers. Most hardy plant nurserymen offer it at 5s. per dozen, and while common in cottage gardens, the flower-loving section of allotment holders show their partiality for it by including it among the flowers they grow. Such popularity is easily explained, since no genus is more elegantly and naturally endowed with leaf and blossom, a few sprays without further accompaniment making a pretty feature in a vase. "Anne Amateur" refers to the good effect of the white variety in a chartreuse green vase; conversely, the blue form is equally good when set in a white vase.—E. H. JENKINS.

FORTHCOMING EVENT

August 29.—Royal Horticultural Society's Meeting and Exhibition at Vincent Square, Westminster.

THE CYPRESSES OF MONTEREY

By A. T. JOHNSON.

FROM the lighthouse of Point Pinos, near Monterey, a wide and lonely expanse of shore stretches away to the south. The trade winds which tear across the ocean with such persistence have swept the silvery sand into billowy drifts which gleam snowy white in the sun, and the outer fringe of the dark Pines of Monterey Head lean back withered and shrunk with the blight of salt.

Follow those gleaming sands southward for about a mile, and you will come upon a grove of Cypresses which is interesting because it is unique; because it is, if we may include the little isolated colony of trees which cling to the rocks of Point Lobos hard by, the only natural grove of *Cupressus macrocarpa* in the world, and because it is slowly but very surely being consumed by the encroaching sea.

The Monterey Cypress, as it is popularly called, needs no introduction to readers of this paper. It is common in a cultivated state in many lands. The feathery, finely cut foliage of rich green; the rapid growth and habit of forming a peculiar density when clipped, have brought it into favour everywhere. It is no less desirable as a hedgerow and windbreak than it is as an ornamental or forest tree. But these Cypresses of our gardens and parks bear but little resemblance to their rugged forbears of the ancestral grove of Monterey, where, on the brink of the sea, they are to-day rallied for a last stand against an inevitable end.

There is a pathos in the stern struggle which the last of the Cypresses are putting up against their impending fate, a note of savage violence and irresistible power in the waves which thunder at their feet. Sullen and darkly the old trees stand against the white rocks, the white blown sands and white fleecy waves. Rained upon by a mist of spray, shorn by a lean, searching wind,

nipped by a biting brine, a cluster of survivors, their boughs gnarled and twisted, and their foliage padded into springy cushions, the better to resist the storm, may for a little while succour one another. But singly they topple over into the sea which has already covered so vast a forest of their companions.

In that brief morning hour, before the awakening "trades" have tuned the first needle of the Pine forest to landward, before the sun is dimmed by flying spray and the ocean whipped to its daily wrath, there is a gloom in the Cypress grove which seems to be even more predictive of calamity. Then the silence is broken only by faint sighs in the tree-tops. No bird lifts up its voice to gladden the melancholy shade. No flower comes to greet the silver spokes of light which pierce the dim and venerable roof. But, presently, down the sombre aisles the sighs of the tree-tops break into audible whispers which are the voices of the sea, whispers which quickly increase in intensity with the rising wind until earth and tree tremble with vibration and the day-long conflict has once more begun.

Look out upon the ocean when the tresses of the "skippers' daughters" are combed white with the gale, and you will see dark rocks appearing and disappearing. They are the headstones which mark the sepulchre of a forest which the eyes of no white man has ever seen.

"There rolls the deep where grew the tree."

And the day will come—at no very distant date—when people who sit at home in the warm shelter of their Cypress hedges will read that the brave old trees of Monterey have been gathered unto their fathers. They will read, perhaps, of how the last survivor of the last little remnant of that mighty forest primeval crashed into the engulfing seas. But just as the noble Redskin will pass

away with the secrets of his soul unrecorded, so the ancestral Cypresses of Monterey will perish from off the earth and leave no trace of their habitation. Over the sea which once was land the winds may wail a lament; the waves a dirge. But the story and the epitaph of that old forest will be written in water.

THREE GREAT BRITISH WORKS ON GARDENING

By THE REV. JOSEPH JACOB.

THE paragraph with the above heading which appeared on the "Notes of the Week" page in THE GARDEN for July 29 has evidently aroused in some readers a wish for more detailed information about the books therein mentioned. The Editor has asked me to reply to these correspondents. "You can give them a column if you like," he said when I saw him. I think he intended me to understand that that space, albeit it is a good slice of a war-time issue of the paper, is *all too small* to do the subject anything like justice. In my humble opinion he is right; and if I may venture to criticise the criticiser ("Hurstcot") in the issue of August 12, it would be misleading to suggest anything else. His lineal measures are past the ordinary man's understanding, when he can write "A full synopsis of all encyclopædic horticultural works ever published would require but little space and be a great boon to THE GARDEN readers."

Take "Loudon's Encyclopædia" alone. The first edition of 1822 contained no fewer than 1,469 closely printed octavo pages, divided into four parts, each part having so many books, each book having so many chapters, each chapter having so many sections, quite in the spirit of the conundrum about the person going to St. Ives and meeting all the wives and the cats and the kits; or, to take a simile from a more classical source, quite *à la* Dean Swift's

"So, naturalists observe, a flea
Has smaller fleas that on him
prey;
And these have smaller still to
bite 'em;
And so proceed *ad infinitum*."

A synopsis or "general survey" ("Chambers' Dictionary") of this one work alone would certainly cost a very considerable sum as an advertisement were it to be in any way a comprehensive one. "Hurstcot" sniffs at this encyclopædia. It, he says, "never was much more than a curiosity." Let me quote the opinion of George W. Johnson (whom he rightly holds in high esteem, although it seems a little doubtful if, in appending the title "Doctor" to his surname, he has not got a little mixed up between George W. and Samuel). This is his verdict: "Taken as a whole, it is the most complete book of Gardening ever published, for errors in dates are mere-casualties



MONTEREY CYPRESSES. "RALLIED FOR A LAST STAND AGAINST AN INEVITABLE END."

and I should have no fault to find if the deficiency of Horticultural Chemistry was less and if the arrangement was more simple." My father was not a bad practical gardener, and this "curiosity" was his great stand-by when he was in doubt, as it is mine to-day when I want to journey into the past. The first edition is dated 1822, and the last that I have been able to trace, is 1872. The later ones are not numbered, so I am unable to say how many editions there have been, but a life of fifty years is in itself a commendation not to be despised. The earlier issues contain a very useful bibliography of horticultural books; hence those who wish to add the encyclopædia to their bookshelves should buy one of the earliest as well as one of the latest editions, if they wish to be really well set up. As the cost varies from about 3s. 6d. to 10s., and as they can be obtained from any second-hand bookseller, they are within everybody's reach.

I must leave "Miller's Dictionary" for another column and, in conclusion, deal with that of Nicholson; "good wine needs no bush." Why "Hurstcot" should be so much up against it I know not. THE GARDEN is a commercial speculation; so are the vast majority of gardening books. The times of rich patrons financing sumptuous volumes have passed away, and (until the said practice may be restored again, which is much to be wished) authors and publishers must needs look at the pounds, shillings and pence side of a book's future. George Nicholson, the editor, although perhaps not the equal of the omniscient Samuel in general learning, was surely a much better informed man in his own special line. The Curator of Kew must be no mean botanist or gardener, whoever he is, but it is singularly unfortunate to fix upon Nicholson and say *he* had not the knowledge of Dr. Johnson or he "would have produced a very different work to that of the unwieldy dictionary." In Volume XLVIII. of THE GARDEN, which was dedicated to Mr. Nicholson, I read about himself, "He combines great ability with a varied knowledge and sympathy with botanical science . . . his knowledge of plants of all kinds is exceptional, whilst in his own special department—that of hardy trees and shrubs—he is the first authority in this country"; and about his book, "the Dictionary of Gardening, published ten years ago, is now universally acknowledged to be the best encyclopædia of plants." Published in parts from 1885 to 1889 and then enlarged by supplements in 1900 and 1901, it is now usually to be had in five or six volumes at a cost of from £3 10s. to £5, according to its condition and its binding. Quaritch of Grafton Street can usually supply a copy. A synopsis of its contents will appear in my next article, together with that of "Miller's Dictionary." Its only defect is its price, and I do not see how this can be helped, for one must pay for a good article.

(To be continued.)

A BEAUTIFUL SEA HOLLY.

ONE of the most interesting plants in the herbaceous border during July, August and the early days of September is the Sea Holly known as *Eryngium Oliverianum*. Its curious, Teasel-shaped flower-heads are produced freely on branching stems from 2½ feet to 3 feet high, and a single plant will, owing to its branching habit, cover a considerable space. Both flowers and stems are coloured



MONTEREY CYPRESSES. "SULLEN AND DARKLY THE OLD TREES STAND AGAINST THE WHITE ROCKS."

rich amethyst blue, and it is principally in this colour that the charm of the plant lies. In common with other members of the genus, this Sea Holly likes an open, sunny position, though it will grow in one that is partially shaded. It also appreciates well-drained, moderately rich soil. If good-sized branches are cut when fully developed and coloured, and subsequently dried, they will last in good condition for a long time, and come in very useful for decorations during the winter months when fresh flowers are not easily obtained.

The large Sea Holly, *Eryngium giganteum*, is also a handsome plant in the border and for winter decorations, its glistening white rigid stems and large bracts and flowers rendering it a conspicuous object at this season.

CROCUS SPECIES FOR SUMMER PLANTING

PREPARATION for winter flowers in the rock garden must be made now. Few plants give us more pleasure than the earliest Crocus species, which gladden the eye with their delicate beauty in the very dullest days of the year. There seems no reason why a few of these cheerful plants should not be grown in every garden, however small, for they are cheaply bought, easily managed and always appreciated. Probably one reason why one sees them so comparatively seldom is because they are forgotten at their proper planting season in the heyday of summer.

No one who has once grown our old friend *Crocus Imperati* would willingly be without it. If the corms are planted in light soil in a sunny, sheltered corner of the rock garden they will take care of themselves, provided they are not allowed to be smothered by any coarse-growing neighbour. No Crocus is more lovely than this Italian species, and when one sees its exquisite mauve blooms, with their buff reverse daintily

feathered with black or purple, opening in the faint sunshine of the New Year, one realises that here indeed is a treasure worth possessing. There are generally odd corners in the rock garden and spaces between groups of small plants where bulbs can be poked in in late summer; it is by making full use of these stray nooks that the interest of the rock garden can be sustained throughout the year.

Crocus Sieberi is another inexpensive yet wholly delightful species which is undeservedly neglected; it is more vigorous than *C. Imperati*, but not quite so early in flower. A couple of dozen corms planted among a colony of deep green foliaged *Dianthus graniticus* made a beautiful picture in the writer's garden in February. Then there is *C. biflorus* in its many charming varieties, of which *C. b. pusillus* is especially attractive for its free-flowering and self-sowing habit. It is so small and neat growing that it may safely be associated with the choicest of dwarf *Campanulas* or *Dianthi*. There are, of course, a great number of other winter-flowering Crocuses, but I have only mentioned three of the most easily grown species in the hope that more gardeners will give them a trial and then be induced to add some of the rarer and newer varieties to their collection.

The autumn Crocuses are more frequently seen, but still might find a place in many more gardens, but if they are to flower this coming autumn they must be planted without delay. Time is fast slipping by while other plants are in the height of their beauty, and the autumn Crocuses will be in flower before many weeks are over. The most vigorous and most popular species is *C. speciosus*, which deserves a place in every garden where hardy plants are grown. It seems to thrive equally in sun and shade, so by judicious planting its solid, blue purple blooms can be enjoyed for a period of several weeks. The pale mauve *C. zonatus*, with orange ring at the base of the segments, is earlier than *C. speciosus*, but is not so vigorous and is more easily knocked over by wind or rain. *C. pulchellus* is charming with its lavender flowers in October, and is easily grown on the rock garden or in a choice border.

N. G. HADDEN.

NOTES FROM MYDDELTON HOUSE GARDEN

By E. A. BOWLES, M.A., F.L.S.

EVERYONE I question on the subject admits that this is a most extraordinary season, but I have not yet found an exact definition of its abnormal character nor any reasonable explanation for it. Here we have had a dripping June, followed by a sunless July. Neither months, however, brought us the heavy thunderstorms with rain that comes through the trees and soaks in everywhere, such a boon and a blessing to a dry garden like this gravelly one. There have been many wet days, but very little rain; cloudy, drizzly days that wetted foliage and encouraged greenness and weeds, but did little to prevent the soil from becoming hard and dry. Now a blazing August with fierce sunshine and drying winds has caught the lush greenness all unprepared, and it makes me quite unhappy to see the way leaves are hanging limp, parching to a papery crispness, or, worse still, falling off untimely. What strikes me as so strange about it is, that for the last two months I have been haunted by a notion it is useless to argue against—that it is autumn, and not summer. The cold nights may have something to do with it, but all day long sounds and scents and the many little things that awaken slumbering memories have been constantly calling up thoughts of autumn. Now the plants seem to have the same idea, and for the last three weeks blossoms have been appearing that I did not expect till the end of the month.

First came a little pink *Merendera* from Spain, just a form of *M. Bulbocodium*, I believe, although it came to me labelled a *Colchicum*. Those who see them in flower should never confuse the two genera, for in *Merendera* there is no perianth tube as in *Colchicum*, and the flowers at first open almost flat on the ground. In old age they arise a little, but then fall asunder into untidy stars, as the segments not being united into a tube, but cleft down to the ovary, fall apart, as also do those of *Bulbocodium vernum* when above ground level. Next I was delighted to see the dainty flesh pink flowers of *Colchicum alpinum* in three parts of the rock garden. This is one of the most delightful little plants for the choicest moraine bed, or among the tiniest alpine treasures, for its leaves are so narrow and neat in spring and stand erect so stiffly for most of their life that they can harm no neighbours when thinly planted. I tried for many years to add this plant to my garden and bought whatever I saw so named in lists, and many a poor form of *Colchicum autumnale* came to me for it. Then I dug laboriously in tough meadow grass and

squlchy bogs matted with many wire-rooted sedges when I was in the Alps, and saw what seemed a narrow-leaved *Colchicum*. Still nothing



ANOMATHECA CRUENTA AND ITS WHITE VARIETY.
(From a drawing by E. A. Bowles.)

but *C. autumnale* flowered round my labels which by that time I had begun to inscribe with "*C. alpinum*?" At length Mr. Farrer returned from alpine wanderings later than usual over the Mont Cenis, and found the slopes rosy with the true fairy-like plant. What is more, he found it a joy to collect, only an inch or 2 inches below ground in the soft turf, and so he came home laden with the treasure; and a postcard

brought me to meet him and receive the lovely things from his generous hand while still in full flower. The whole blossom is no more than 3 inches high, and very pleasing in its proportions, with prettily rounded segments and of good substance. Once I had seen its narrow leaves, I felt confident I could find it for myself even when out of flower, and, sure enough, some narrow-leaved bulbs I brought from Le Lautaret have borne the right flowers.

Cyclamen neapolitanum began to flower freely in the third week of July, before its last year's seeds were ripe enough to gather and sow, and I daily expect to see the Autumn Snowflake and the earlier *Croci*, but I do not want them yet while there is so much else to look at.

Anomatheca cruenta is especially good this year. It has done best in a corner between the house and the conservatory, where it is shaded all day by my oldest and tallest Palm and a *Nandina* besides the buildings. Nothing else would grow and flower so well in such a place. I learnt that it liked shade from Canon Ellacombe, who had a delightful colony of it under one of his tall Palms, and as it can be bought in quantity for a few pence, I filled this corner with it. Now I have added a few of the more precious pure white form, and the two are very lovely growing together. I wish someone would raise, or find, a white form with the crimson spots on its almost too pure and pallid face.

Silene fimbriata is too good a plant to be treated with such neglect as it has met with in English gardens. Certainly it requires space for its yard-high, freely branching stems, and unless its seed-pods are cut off in mid-July, it gets rather untidy and sows itself about too freely. But cut it over severely when the bladder-like pods are turning yellow, and in a week or so you will get a fresh supply of the beautifully fringed, pure white blossoms. They open out to their widest towards evening, and then are good to look at either in the mass or picked and held singly in the hand so as to admire the beautiful cutting of the fringe.

Two good forms of the common waterside Willow-herb, *Epilobium hirsutum*, are now at their best. One has white blossoms with the calyx prettily tinted with crimson, and as the flowers age they flush to a soft pink, much in the same way as the flowers of their relative, *Oenothera taraxacifolia*. This gives the heads of the Willow-herb a very charming Apple blossom effect,

and as it grows and flowers equally well in the ordinary border as by the waterside, it should be in every garden, yet it is not very well known. The other good form is much more downy than our wild one, especially on the long ovaries, which look quite grey and fleecy and help to show off the large, rounded flowers, which are of a very charming soft and warm red, quite the most pleasing shade I have seen in a Willow-herb, most of which are

tainted with the family vice—the weak magenta tint of poor Clarkias and Godetias. I also grow a pure white form, but it is not so effective as the Apple-blossom one. I cannot afford space for more than three stems of a very strange monstrous form. It never achieves any corolla, but each flower consists of a long spiral of green sepals that is more curious than beautiful, and I treasure yet another form with beautifully variegated leaves, but am careful to cut off its nasty crude pink flowers.

Lythrum virgatum Rose Queen is another plant that has risen superior to family traditions and sweetened the *Lythrum* magenta with an admixture of warm rose colour. It also has a much neater habit and bears a lighter spike of bloom than the varieties of *Lythrum Salicaria* that are more commonly grown.

I am growing *Collomia grandiflora* for the first time, and am greatly pleased with the soft apricot or nankeen tint of its flowers and the very distinct effect of their contrast with its red stems and glossy, deep green leaves. But I feel it could be improved if the leaves were smaller and fewer and the flowers larger and packed a little closer in the pincushion-like heads. However, if it will sow itself as pleasantly as does the glowing pink *C. coccinea*, it shall be reckoned as one of the acceptable annuals for the sake of its colour.

One of the best of Mr. Farrer's Chinese plants, to my mind, is a delightful little *Geranium*. It should be a near relative of *G. Pylzowianum* or *napuligerum*, I should say, but at present is such a miniature, neat plant that it may not belong to either. The baby plants began to form underground stolons before they had many leaves, and so each one has formed a neat little tuft of finely divided leaves, much like those of *G. sanguineum* var. *lancastriense*, but each springs from the ground separately, as in the tuber-bearing species, such as *malvæflorum* and *tuberosum*, but on stalks only about 3 inches high. The flower-stem bends over along the ground and bears large, bright pink flowers from each of its joints, that remind one somewhat of those of *G. Endressii* with a suggestion of *G. argenteum* about them. It promises to be a very charming and neat plant for the choicer parts of the rock garden.

The beautiful soft yellow form of *Incarvillea variabilis*, which several of us flowered from Mr. Farrer's seeds last year, is again in bloom, and very charming with its finely cut Ferny leaves and flowers like miniature and pale Allamandas. Alas, it is not hardy here, and only those I lifted and kept in pots in a frame have survived the winter. However, it seeds so freely and grows so quickly that it can be treated successfully as a half-hardy annual.

This season another of his finds is flowering, possibly an *Amphicome*. It has handsome pinnate leaves and long spikes of pale pink, tubular flowers, much like those of *A. Emodi* but smaller. What they lack in size the plant promises to make up in quantity, for I see side shoots of flower-spikes are developing in a most lavish manner. It does not look like a very hardy plant, somehow, and if it must be kept inside for the winter will not be preferable to the larger-flowered *A. Emodi*.

P.S.—I see that my autumn-flowering form of Christmas Rose from Como also shares the autumnal hallucination, and is in full flower. Normally it flowers in November, so I hope it will return to such a useful habit next season.

HARDY PLANTS IN A SCOTTISH GARDEN

THE plants I am about to discuss are by no means particularly rare, nor are they excessively difficult of culture, but each has considerable value as an effective and pleasing subject for the hardy border or for the production of cut blooms for table or room decoration. The majority can easily be raised from seeds, while others are increased by means of cuttings or by division of the root stock. Very brief cultural hints are appended to each.

***Agrostemma coronaria atrosanguinea*.**—A member of the *Lychnis* family, and very effective in clumps or in beds. Best treated as a biennial, the seed being sown in April and the plants set out in August where they are to bloom.

***Aquilegia*.**—The long-spurred modern varieties are really very fine, and no garden should be without this lovely plant. Fresh plants should be raised each spring, for, although true perennials, they are not long-lived as a rule, and it is safest to have young stock always coming on. The *Aquilegia* transplants badly when in a large state. It succeeds admirably on a north border.

***Aster subcærulea*.**—This is a gem, but, unfortunately, it has a disappointing habit of dying off in winter. Seed should therefore be sown each spring, when strong plants will be available for the following year. It usually withstands the first winter all right, so biennial treatment is to be commended.

***Bocconia cordata*.**—Large clumps of this plant near the backs of large mixed borders are very pleasing. It is excellent for cutting.

***Chrysanthemum maximum*.**—These modern "Daisies" are really very effective. Mrs. Lowthian Bell appears to be one of the best, its large, slightly curved rays being much more graceful than others with stiff petals. Easily raised from seed.

***Cistus Florentinus*.**—Although considered rather tender, this fine dwarf shrub succeeds admirably here. Though the individual flowers are ephemeral, they are very freely produced over a fairly lengthy period. Very suitable for

the rock garden. Easily increased by cuttings inserted in autumn and wintered in a cold frame.

***Coreopsis grandiflora*.**—What a pity it is that this beautiful plant is not always perennial! Here we must treat it as a biennial. Planted in clumps of three in the borders, few other plants can equal it for effect. Seed should be sown in March to ensure strong plants.

***Delphinium*.**—This plant fairly revels in these gardens, not infrequently attaining a height of 9 feet to 10 feet, and with spikes of bloom 5 feet long. Seed of a good strain sown in spring will flower the first autumn as a rule, and provide



A NIGHT-FLOWERING PLANT (*SILENE FIMBRIATA*).

a grand display the following year. Very effective in large clumps.

***Dianthus*.**—The most effective and pleasing are *D. integer* and *D. neglectus*. Increased by cuttings in autumn or by division in spring.

***Erigeron*.**—There are several good varieties, but probably the most useful is *E. speciosus*. It comes nearly true from seed, and is very useful for cutting, besides being so pleasing in the garden.

***Escallonia philippiana*.**—This is another fine dwarf shrub, usually considered somewhat tender. Here it thrives and flowers beautifully. Increased by means of cuttings in autumn, which are wintered in a frame.

Galega.—The newer varieties, like *Hartlandii* and Rev. W. Dodd, are very handsome plants that bloom for a long period. The latter seems rather the better of the two, having larger flowers and a more decided colour. The old *G. officinalis* alba is also very desirable.

Geum.—No doubt *G. chiloense* var. Mrs. Bradshaw is one of the very best varieties in cultivation, and ought to be in every garden. It comes fairly true from seed. Sown in March it produces fine plants for the following year.

Hesperis matronalis flore pleno.—One of the finest of hardy border plants, but not of the easiest culture. The best results are obtained from cuttings taken in August or September and wintered in an airy frame. Will not stand coddling.

Heuchera.—If only we could induce *H. sanguinea* to bloom freely, how effective it would be. *H. brizoides* is far better and never fails to give a fine display. Best increased by cuttings taken early in September and wintered in a frame.

Lavatera Olbia.—This handsome new plant is not always certain to survive the winter, so it is well to insert cuttings in a frame early in September.

Lithospermum prostratum.—One of the finest of blue flowers. It succeeds admirably in the border, but is apt to be killed back in winter in such a position. It is safest on the rock garden. Increased by cuttings in autumn.

Lysimachia ephemerum.—This Veronica-like plant is always singled out by visitors, few seeming to know it. It remains effective for a fairly long season.

Meconopsis cambrica plena.—This fine double form of the Welsh Poppy blooms uninterruptedly for many months, and is decidedly pleasing near the front of the border. Increased by seed or by division.

Morina longifolia.—This Thistle-like plant always commands attention. The long spikes of pretty, pale pink flowers are very handsome above the graceful green foliage. Easily raised from seed.

Orobis luteus.—This is a plant with handsome foliage and long racemes of tawny yellow or orange flowers.

Polyanthus.—One of the most popular of all spring flowers, and one that succeeds wonderfully here. It is desirable to have fine strains, such as Storrie and Storrie's and The Munstead. Besides giving large blooms and fine trusses, the colours are both varied and beautiful.

Rudbeckia Autumn Glory.—A fine form of the dwarf *Rudbeckia*, but, unfortunately, not very hardy here. Best, therefore, treated as a biennial.

Saxifraga.—Many fine forms of this useful plant are now to be had, the "Mossy" section giving us such gems as *bathoniensis*, *Wallacei*, *Rhei superba*, *Guildford Seedling* and *trifurcata*. A packet of seed from a good source gives great satisfaction.

Sisyrinchium grandiflorum.—This thrives exceedingly well here, and is always greatly admired. Division at almost any time suits this plant.

Trillium.—A really fine plant. Succeeds best in a rather moist position. C. BLAIR.
Preston House Gardens, Linlithgow.

NEW AND RARE PLANTS

AWARDS OF MERIT.

Dahlia Bonfire (Collarette).—A variety of sterling merit, the clear geranium scarlet colour rendering it very attractive. The flower is upwards

being of crimson purple and lined with yellow near the throat. Shown by Messrs. Charlesworth and Co., Hayward's Heath.

CULTURAL COMMENDATION.

Odontoglossum aspidorhinum.—A cultural commendation was awarded to Mr. H. T. Pitt, Rosslyn, Stamford Hill, for a delightfully flowered example of *Odontoglossum aspidorhinum*, a graceful and elegant species of a foot or so high having inch-long, linear, yellow sepals spotted crimson, and a small, pure white lip marked with reddish crimson spots. It formed a considerable attraction.

The foregoing novelties were before the Royal Horticultural Society on August 15, when the awards were made.

THE MIMULUS OF DOVEDALE

It is worth making the journey in late July from North or South to this secluded heart of England, if only to see the glorious masses of *Mimulus luteus* lighting up the rippling waters of the Dove. In that otherwise useful holiday companion, "Wild Flowers Month by Month," by Edward Step, F.L.S., it is altogether omitted, but Babington includes it in his "Manual of British Botany" as "an American plant naturalised in many boggy places." Whether a native or a garden escape, it is at this time the glory of the Dove, and seems equally happy on marshy banks or on islets of *débris* in mid-stream, frequently submerged by the current.

Curiously, the *Mimulus* of the Dove has a few reddish brown spots or blotches (one very decided one on the lower lip) which give it great distinction; whereas the plant growing equally luxuriantly in the Manifold, a tributary of the Dove, is pure gold. Which variety is in the ascendant after the confluence of the two rivers I had no opportunity of discovering.

Propagation should be easy, as the *Mimulus* seeds very freely, and one wonders if the owner of that lovely Welsh "stream garden" so charmingly described on August 5 has tried it there. Other native wild plants that gardeners would do well to consider at this time (and I have read somewhere and believe that all true gardeners should know and

love our British wild flowers) are the beautiful rose pink Musk Mallow, the perforated St. John's Wort (*Hypericum perforatum*), for sunny promontories in the rock garden and the yellow Loosestrife (*Lysimachia vulgaris*), which in good garden soil attains a height of from 4 feet to 5 feet and gives an effective glow of rich Indian yellow before most of the autumn yellow flowers begin. But—"a word to the wise is sufficient"—spare them in their native haunts! I believe all these may be obtained from a good nurseryman.

Lancs.

W. D.



THE NEW COLLARETTE DAHLIA BONFIRE. COLOUR GLOWING SCARLET.

of 4½ inches across and, lifting well to the view, is supported by 18-inch-long stems; hence valuable for decoration. From Messrs. Dobbie and Co., Edinburgh.

Cattleya Weedon aurea.—In this the sepals are of a rosy mauve shade, the handsome goffered lip of ruby crimson being freely pencilled with yellow at the throat. From the Duke of Marlborough, Blenheim.

Laelio-Cattleya Serbia (L.-C. St. Gothard × *Cattleya Enid*).—The large ovate sepals are of a pronounced rosy hue, the lip, which is also large,

EARL BROWNLOW'S GARDENS AT BELTON PARK

BELTON HOUSE, the Lincolnshire seat of Earl Brownlow, stands in a well-wooded park of over 600 acres, about three miles from Grantham. The house, built in 1689 from designs by Sir Christopher Wren, is approached by a beautiful avenue of trees. The gardens are on the north side of the house, and, through the courtesy of Earl Brownlow, are frequently thrown open to the public. In normal times floriculture is carried out there to perfection, but in these strenuous days there is naturally some falling off, owing to shortage of labour and the husbanding of resources for the successful prosecution of the war. There are generally some novel features to be seen at Belton. At the time of my visit a very effective scheme of bedding was observed, which consisted of a huge Prince of Wales' Feather, cut, with clean, sharp edges, out of the lawn. This was planted with mauve Violas and edged with dwarf Box. When viewed from the elevation provided by the steps of the adjacent Palm-house, the effect was very fine. On the opposite side of the Palm-house a geometrical design, with bold, sweeping curves, was similarly treated.

The sunk garden is circular, the beds being grouped around a central Lily pond with ornamental fountain and an Ivy-clad pergola. As seen from the higher ground, the scheme of colouring and the graceful curves of the beds are charming. Nearer the house and in front of its elevated terrace are the ornamental gardens, with large beds of the choicest flowering and foliage plants. Here a number of statues on pedestals are dotted about, and add to the beauty

of the scene. One bed in this portion of the gardens was particularly effective. It was a large oval bed, in the centre of which was a huge vase planted with Geraniums. Around the vase were planted in profusion a number of Liliums, Hydrangeas, Verbenas, &c., with an appropriate edging.

At the rear of the Palm-house are the Rose gardens. There is always a fine display of spring flowers at Belton, and these are succeeded

by bedding-out plants, which are usually at their best in the months of July and August.

83, Aswell Street, Louth.

H. WALKER.



BELTON PARK: THE CONSERVATORY.

THE EARLY TRENCHING OF VACANT PLOTS

WHERE land is of a stiff nature—not actually clay perhaps, but a near approach to it—and where the natural drainage is not of the best, it is sound policy to deeply trench at this season any vacant plots which are to be occupied during the winter with such crops as Cabbage, Onions, Spinach, Broad Beans, or the like. By this means perfect drainage for such crops is ensured, and the work is so much easier done when the soil is dry.

Deeply trenched soil has many advantages over that which is not so treated; the crops succeed so much better either in a wet or a dry season, and perfect drainage is ensured, thus preventing the water-logging of the roots, which gives a check to the growth of the various subjects by the inaction of the roots. In a dry season, trenching conserves the moisture in the soil, as it prevents the making of fissures through which the moisture is extracted by the sun's rays.

For the crops noted, manure should be added liberally within a foot or so of the surface, and the plants will benefit by its presence. I do not advocate the use of manure in the trenches a yard or so deep. There, I think, it is wasted until the plot is retrenched, when the manure is again brought to the surface. Decayed vegetable refuse, freshly gathered leaves and wood-ashes are all valuable additions to the soil during the operation of trenching.

E. M.



BELTON PARK: WATERFALL IN WILDERNESS.

THE FIG-LEAVED HOLLYHOCK (*ALTHÆA FICIFOLIA*)

THE single yellow Fig-leaved Hollyhock is certainly one of the most beautiful of its race. Many prefer the single forms to the monstrously doubled florists' varieties now usually met with in gardens, which entirely lack the grace of contour exhibited by the blossoms still to be found in some cottage gardens, which have centres of curving petals not too closely doubled and clear guard petals. Of the singles, *Althæa ficifolia* is to be preferred to any, its flowers, of exquisite shape, being of a delightful clear pale yellow colour, and the plant is well worthy of inclusion in the best herbaceous border. The blossoms are from 3 inches to 4 inches across, of delicate texture and very refined in appearance. The leaves are large, palmate and divided into from five to seven lobes, and somewhat resemble those of a Fig tree. From shortly after midsummer until the late autumn this Hollyhock creates a charming picture in the garden, its towering stems, 8 feet and more in height, being studded with clear-coloured blossoms. Many aver that the Hollyhock should be treated as an annual, and that it is useless to retain old plants; but this particular specimen has now occupied its position for over five years, and annually throws up flower-stems that show no sign of decreasing vigour. It is also, apparently, not so susceptible to the dreaded Hollyhock disease as most of its family; for the plant in question has never shown the slightest symptom of it, though it must be said that no other Hollyhocks are grown in the same garden. Every year self-sown seedlings appear around the parent plant, numbers of which have been given away to those who did not possess the plant. *A. ficifolia* is a native of Siberia, whence it was introduced into this country more than three hundred years ago.

EDITOR'S TABLE

New Pentstemons from Barnet.

From the Barnet nurseries of Messrs. William Cutbush and Son we have received a number of new seedling Pentstemons, which we are bound to say form an advance on the older type in size of bloom or spike and in their brilliance of colour and freedom of flowering. The Barnet nurseries must present a scene of unusual splendour at the present time, for we hear that there are over 1,500 plants now in full bloom. Of the varieties sent, we very

much admired some of the lavender and purple shades. Neapolitan is a delicate soft lavender, and Diadem a pretty mauve. Harold Carey is a good purple and better, we thought, than the very tall Titania, which is of paler hue. Two very taking varieties were seen in Rosy Morn (old rose with white-throated flowers) and Mrs. Leonard Cutbush (a bold red, deeply lobed



THE PALE YELLOW *ALTHÆA FICIFOLIA*.

flower), while others that deserve special praise are Rajah (a grand scarlet), Flambeau (brick red) and Barbara Hope (another good red). These are new varieties and were not represented in the recent trials at Wisley. So many new and improved varieties have been raised just recently that we look forward with interest to the time when we may have another trial of these border flowers.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

Fruit Gathering.—It is impossible to lay down any hard and fast rule as to when fruit should be picked. Much depends upon the district and season, but one way out of the difficulty is to examine the early kinds almost daily. A few that will require attention are Pear Jargonelle and Apples Langley Pippin, Devonshire Quarrenden, Lady Sudeley and Irish Peach. Peaches should be examined carefully and picked before they become too ripe.

Morello Cherries.—When the trees have been cleared of their fruit, it will be a suitable time to remove all the surplus growth. This will allow the remaining shoots to ripen, and if carried out properly, no further attention will be required. Do not overcrowd the walls, and after the work is finished give a thorough washing with some insecticide.

The Kitchen Garden.

Parsley.—Make a small sowing of Parsley, selecting a piece of ground where it will be convenient to place a frame over it during the winter months. Early sown plants may be cut down close to the soil to produce sprays for winter use.

Onions.—The spring-sown crop will soon be ready for harvesting, and directly the bulbs are fully matured they should be placed in a cool, dry shed ready for a wet day, when they can be tied up in bunches and suspended.

Beetroots.—The early crop of Beetroots may be lifted and stored in dry sand or ashes, but the heaps should not be too large, or they will become heated. Later sowings may be left until the Beetroots attain the required size.

Tomatoes growing in the open must have their foliage curtailed a little and all side growths removed. Every encouragement must be given to assist in the ripening of the fruits already set. Keep the roots well supplied with water, and a slight stimulant will be helpful.

Winter Vegetables.—Any vacant space can be filled up with winter Greens, while a line or two of Leeks may also be planted. The hoe should be kept going, so as to kill all weeds before the approach of winter.

The Flower Garden.

Hardy Annuals.—In favoured localities where the soil is of a light, sandy nature, many annuals may now be sown to stand the winter. They include Sweet Peas, Larkspur, Shirley Roppy, Nemophila insignis, Candytuft, Cornflower, Sweet Alyssum and others. Sow the seeds thinly, and each seedling must be given sufficient space to develop sturdy growth.

Dahlias.—These should be given strong stakes and the growths tied in neatly. Remove all dead blooms and give liquid manure, especially where the soil is poor.

Plants Under Glass.

Lachenalias.—These may now be potted in a somewhat rich compost, as they pay for generous treatment. In addition to being suitable for pots they are excellent for baskets, placing the bulbs so that the foliage will cover the receptacle.

Arum Lilies.—The plants that have been rested in their pots should now have the old soil shaken from their roots and be repotted in a mixture of good loam, with a little leaf-mould, sand and decayed manure added. Arrange the plants in cold frames, and for a few weeks afford water sparingly.

Malmaison Carnations.—The young layers having been severed from the old plants, they may now be potted up into 4-inch pots. Make the soil fairly firm and give a good soaking of water. A shelf near the roof glass of a cool house will suit them admirably.

Caladiums.—When the leaves show signs of decaying, water should be gradually withheld, and then the corms will take a decided rest.

Fruit Under Glass.

Strawberries.—The earliest batch of Strawberries required for forcing are now rooting freely in their fruiting pots, and the roots must be kept well supplied with water. When the pots are filled with roots, occasional doses of weak liquid manure and soot-water may be applied with advantage. Give each plant plenty of space, and remove runners, dead leaves and weeds as they appear.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)
Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Onions.—Owing to the lateness of the season Onions are still in full growth. The stems should be bent over to encourage the swelling of the bulbs, especially with those having thick necks. As soon as growth stops and the plants show signs of natural ripening, they should be pulled up and laid out to dry. This must be thoroughly done in order that the bulbs will keep well through the winter. When lifting the crop it is advisable to ease up the roots with a digging fork, especially the large specimens.

Spinach.—A latest sowing of Winter Spinach may still be made; select a fine, dry day for the purpose.

Potatoes.—The second-early varieties will now be sufficiently ripened, and these should be lifted and stored, carefully selecting for seed only good samples from plants showing the correct type. If these are to be stored in pits they must be carefully dried. Tubers for table use should not be placed in too large heaps, for at this season they are liable to become heated, which affects their quality.

General Work.—With much showery weather there is generally an abundant crop of weeds, so that every effort is necessary to keep these in check; and although other departments may have to suffer from lack of labour, the kitchen garden should be the first to receive attention. Keep the hoe going regularly on dry days. Peas and other early crops that are over should be cleared away at once, as much of this vegetable matter soon becomes offensive. Pea stakes when pulled up should be selected, and only those fit for future use stored. This saves much labour at the time they are again required. Spruce branches are the most economical to use, as they last much longer than any other sort. Late lines of Peas should be given all the air and light possible if the lines are dispersed throughout the vegetable quarters. Potato haulm should be turned back. Large Cabbage leaves encroaching too much should be trimmed back, so that the Peas get the maximum of light.

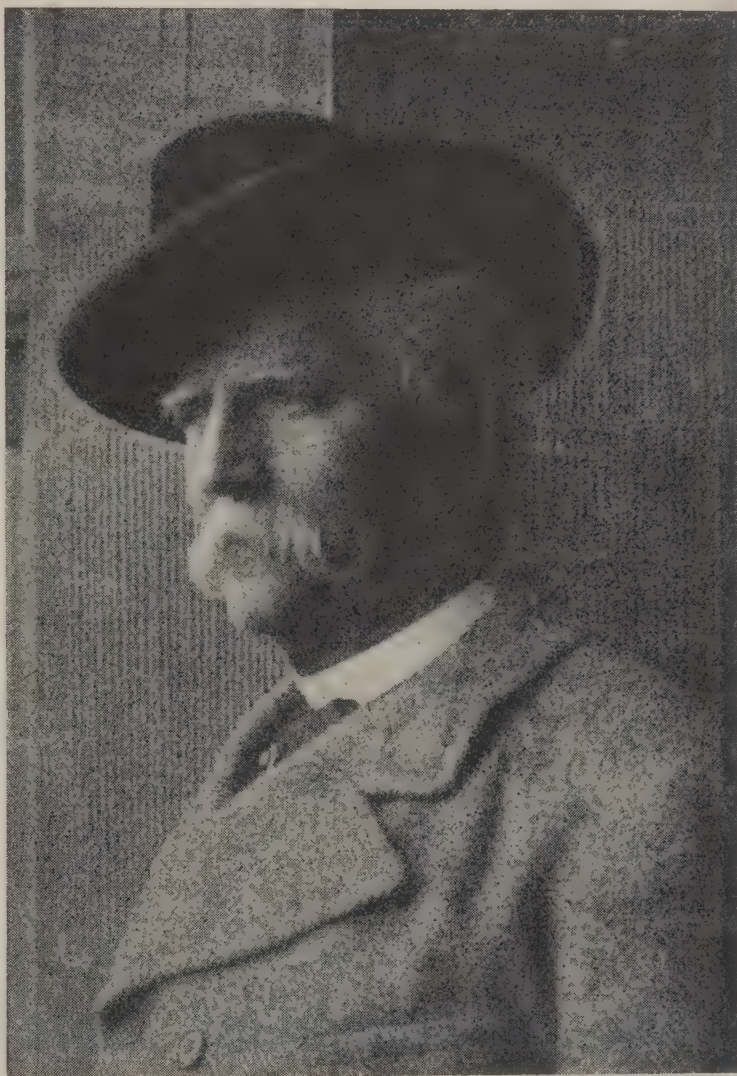
The Flower Garden.

Propagating.—It is now about time to commence the propagation for stock of a number of tender bedding plants, such as Lobelia, Iresine, Heliotrope and Ageratum. These should be dibbled into boxes of light soil surfaced with sharp sand, and placed in a shady pit until rooted. Continue also to put in cuttings of Geraniums, as soon as these can be obtained without unduly

thinning the plants. A further batch of Pentstemon cuttings may also be taken now.

Summer - Flowering Chrysanthemums.—The flower-buds of these are now beginning to open and some stimulant may safely be given. Attend in time to the supporting of the side shoots, as damaging winds may be looked for at any time now. If any of these plants are required for transplanting while in flower, they should receive some preparation beforehand, beginning by cutting down one side of the roots with the spade and repeating this on the other sides at intervals of ten days. By this method the plants can be successfully moved for filling up exhausted beds in the flower garden.

Lilium candidum.—It is seldom an advantage to disturb this lovely hardy Lily; some of the finest specimens known have been growing continuously in the same spot for many years; and so long as they continue to thrive they should be left alone, if possible. Where transplanting is necessary, however, it should be done about



THE LATE LORD REDESDALE.

this time. Place the bulbs about 4 inches deep in good sound loam in a position where it will not be necessary to disturb them for a long time.

The Hardy Fruit Garden.

Gooseberry and Red Currant Bushes that have been cleared of fruit and the nets removed will be greatly benefited if a portion of the young wood is removed so that light and air will penetrate to all parts. The ground underneath should be well hoed and raked.

Raspberries.—Directly the fruit has been gathered, all the old fruiting wood should be removed, cutting it down to the base so that the young growth receives the benefit of full exposure to sun and air. Thin out the young wood as well, leaving only sufficient for tying in for next season's fruiting. This should have some sort of temporary support to prevent breakage. If a few suckers have been left well away from the rootstocks for forming new plantations, these should remain where they are to mature their growth, but should be removed as early as possible afterwards.

Apples.—Early dessert varieties, such as Irish Peach, Margaret and White Joaneting, are best when used direct from the trees, as they do not improve when stored. The same may be said of Pears Jargonelle and Clapp's Favourite, but these should be quite ripe before being gathered. A good test of ripeness is to lift the fruits gently to a horizontal position, when, if ripe, they become detached from the tree.

Plants Under Glass.

Lily of the Valley.—Retarded crowns at this season come very quickly into flower, and on that account they are a great advantage where a sudden demand for flowers is anticipated. Arrangements should be made for a weekly delivery of crowns. These should be potted up on arrival, placed in a cold frame, given a soaking of water and shaded from the sun for a few days, after which they may be moved to the greenhouse or warmer quarters, according to necessity.

Poinsettias.—Cuttings of these put in last month will now require potting on. A rich loam should be provided; the temperature and partial shade of a Melon-house suit them when newly potted.

Malmaison Carnations.—The earliest-rooted layers should now be ready for potting. Use a good heavy loam with soot and lime rubble, and pot firmly. Stand the pots on an ash bottom in a cool pit, if possible, and shade from the sun on bright days.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle, N.B.

OBITUARY

LORD REDESDALE.

BY the death of Lord Redesdale, which occurred at Batsford Park in the Cotswolds on August 17, horticulture loses one of its most picturesque and ardent devotees of the last half century. He will long be remembered in horticultural literature for that excellent work, "The Bamboo Garden," published in 1896, following a series of papers on the subject published in THE GARDEN. His great enthusiasm for this beautiful family of plants is revealed in this work; it is a complete and careful study containing valuable information about planting as well as the economic importance of the Bamboo. His friendship with the late Sir Joseph Hooker enhanced his interest in collecting and cultivating outdoor plants, and his beautiful garden at Batsford Park is a reflection of his good taste and wide knowledge. His interest was by no

means confined to the Bamboo, for he cultivated many rare and little-known plants with marked success, and he proved by experiment that many unexpected plants would stand the rigours of our peculiar climate. His success in this direction was all the more remarkable as his garden was situated in an unfavourable position on the eastern verge of the Cotswolds. Here he grew over forty species of Bamboos, most of them natives of Japan, China and the Himalayas. The cultivation of little-known plants that he had seen during a long and active life in other lands was one of his great interests in his later years. The sixty-second volume of THE GARDEN was dedicated to him.

WILLIAM YEATS BAKER.

WE learn with regret of the death, on the 10th inst., after a long illness, of Mr. W. Yeats Baker of Aspen House, Streatham Hill. Mr. Baker was

formerly proprietor of the Thames Bank Ironworks Company, Limited, horticultural engineers. He was keenly interested in the work of the Gardeners' Royal Benevolent Institution and subscribed generously to this charity, also faithfully serving on the committee for nearly forty years. The funeral took place at Christ Church, Streatham, the interment being made in Norwood Cemetery.

EDITORIAL NOTICES

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

SEEDLING CARNATION FOR OPINION (A. E. S.).—The blooms are of a very commonplace white, with no distinctive features. It is not as good as some of those already on the market, such as Furthest North, Bookham White and Prairie Belle.

GERANIUM FLOWERS TO NAME (T. D.).—It is an exceedingly difficult matter to name florists' flowers, and by far the most satisfactory plan is to send the flowers to some firm that makes a speciality of these plants, and where they can be compared with growing examples. In any case, owing to the rough handling through the post, the flowers were reduced to such a state that it was quite impossible to identify any of them.

UTILISING PINK TILES (Hibernia).—You might utilise the tiles by introducing them into some already existing formal design, as the number—200—would be insufficient in itself for anything on a more pretentious scale. For garden work generally, however, the colour is against them, and would be found to clash with many things. You might, of course, use them for the floor of a garden-house or hut, though even here we should prefer something of a more restful nature. We regret we do not know of a book likely to be of any assistance.

CROWN IMPERIALS (Maude Poppy).—If you are interested in these plants, the seeds are certainly worth saving, and, if sown soon after ripening, usually vegetate freely during the ensuing spring. Sow thinly in pans or boxes in order that the seedlings may have room to develop, the transplanting of these bulbous-rooted subjects in the growing state not being desirable. After finishing the first season's growth—a very short one in these plants—and died down, you should replant in similar receptacles with more room for another year, after which, when dormant, they may be given a prepared spot in the open. Some sow the seeds in shallow drills in the open, though vegetation is less good and progress slower. Cool greenhouse or frame treatment during the first two years is best. In no case would you get a representative flowering much under six years, though a few bulbs may flower before that time. Once a start has

been made, it requires but a few annual sowings to secure a good stock of bulbs valuable alike for border or woodland.

ABOUT YUCCAS (Seaside).—As soon as your Yucca flowers fade, cut the flower-stem down to within 12 inches or 18 inches of the base; then, when it dies, cut it away altogether. One or more new branches will be formed next year from the stem just below the base of the flower-spike, or perhaps such growths may have been formed this year. They will flower as soon as they are strong enough, but that may not be for several years. A large, old plant with a number of branches may flower almost every year, for it will bear branches of all ages, from quite young ones to those of flowering age; but plants with few branches often miss one or more years between producing flowers. As the head becomes heavy, watch the plant carefully, and if you observe a tendency for it to fall over, secure it to a stout stake. Heavily branched Yuccas are very liable to be broken by wind. Should a branch be unfortunately broken off, it may be used as a cutting. Remove some of the lower leaves and place it in a pot of sandy loam and leaf-mould in a close frame until rooted; then plant it out in the ordinary way. Your plant will not require any special treatment, providing it is planted in moderately good soil.

DAHLIAS FAILING IN WINTER (D. W., Surrey).—The lateness of lifting, in conjunction with storing the tubers while damp in a doubtful frost-proof loft, are doubtless responsible for the losses you have sustained. In all probability the actual mischief was done before the plants were lifted, though you do not say how late that was done. Late last autumn we had severe frost and snow, and any plants then in the open, particularly shallow-planted ones, would be sure to suffer. If not convenient to lift them when first cut down by frost, the plants should be protected by doubling their own tops over them or in some other way. Do not cut them down, as the stems being hollow, the frost gains ready access to the crowns, and in this way much damage may be done by one night's frost. Planted 6 inches below ground, the plants would be safe till mid-November from any frost usually experienced. The rational way, however, would be to lift them as soon as their season's work in the garden is completed, removing them to a frost-proof shed to thoroughly dry before storing them away. A cool, frost-proof cellar is a good place. While the plants can hardly be too dry when stored, the drying should not be of so excessive a nature as to cause the tubers to shrivel rapidly. If the loft is the only place of storage you possess, the tubers would be safer if placed in a wooden box and covered with Cocoanut fibre or similar material.

CARNATION CALYCES SPLITTING (A. H., Shanghai).—A correspondent writes from China to enquire the reason of Carnation calyxes splitting; so that they evidently have their calyx troubles in China as well as in Europe and America! The fact is, the abnormal splitting of a Carnation calyx may arise from a variety of reasons, either from root or atmospheric conditions. The splitting of the calyx is a common result of sudden changes of temperature, too high an artificial heat or when the temperature is too cold. For instance, if the cultivator in winter kept his plants at the proper day temperature of about 50° Fahr. and maintained the proper ventilation, but then let the temperature at night drop to about 38°, he might expect split calyces. Nothing is more productive of split calyces than insufficient ventilation. To sum up, split calyces are the result of sudden changes of cultivation. Presuming that winter conditions in China are similar to those in this country (although probably we have still less sun), the plants should have a little lower temperature during dull days, say, 4° or 5° less, but always with a little ventilation. There is one thing, however, with which the cultivator may console himself. In this country, at least, it is quite normal for certain varieties to split their calyces in winter; Carola may be mentioned as one of them. This variety has so many petals to open that the sunless days of winter do not permit them to unfold quickly enough, so that the splitting of the calyx is Nature's own way of helping the flower to develop. There are several others, such as the large and beautiful group known as the Enchantress family; these and varieties like them frequently split after the middle of the winter. Many growers now use small wire or rubber rings on such flowers, which hold the blooms together so that the split is unseen.

TREES AND SHRUBS.

EVERGREEN CLIMBER (Antrim).—The specimen sent for determination is *Vitis striata*, sometimes called *Vitis sempervirens*. It can be increased by layers put down at any period of the year, or by cuttings of short shoots inserted in sandy soil in a close frame any time during summer. It would not be advisable to attempt to increase the stock by division of the rootstock.

YELLOW FLOWERING SHRUB (M. L. E., Dorking).—The branch sent is that of *Cornus capitata*, which is synonymous with *Benthamia fragifera*, otherwise Bentham's Cornel or Strawberry Tree. It will grow to a height of 30 feet to 40 feet in Cornish gardens and South-West Ireland, and the yellow flowers are followed by fleshy, Strawberry-shaped, crimson fruits. The fruits are seen at their best in October and November. Belonging to the Natural Order Cornaceæ, it is not, as you suppose, of the Hibiscus family.

STANDARD TREE LUPINES (H. W. S.).—To secure the finer effects the Lupine gives when grown in standard form, the plants should be grown from seeds or raised from cuttings. Seeds sown in spring would be best, and, selecting the more vigorous seedlings, grow them to a single stem to the height desired. All that is necessary

is the staking and tying of the plants in order to keep them erect, and the suppression of all lateral or axillary shoots—by rubbing them out with finger and thumb—as they appear on the stems. With the desired height of stem attained, the point of growth should be removed, thereafter directing attention to the forming of a head or bush at the summit of the stem. This is best done by pinching or stopping the growths when a few inches long and the discouraging of flower-spikes, should any appear. By retaining the axillary growths on the last 6 inches or 8 inches of the stem, a sufficient number of breaks—young growths—should appear after the stopping of the main stem to form a good head, and these, once stopped as suggested above, will assist the object in view. If very tall—4 feet or 5 feet—stems are desired, the seed sowing should be done quite early in the year.

LEPTOSPERMUM TO NAME AND TREATMENT REQUIRED (Miss B.).—The *Leptospermum* sent is *L. Nicholsii*, a variety of the well-known *L. scoparium*. This last is a native of a considerable tract of country in Australia and New Zealand, where it is known by the popular name of "Manuka." Generally the flowers are white, with at times a slight reddish or lilac suffusion, whereas in *L. Nicholsii* they are richly coloured. It is certainly a very desirable shrub, which at the International Horticultural Exhibition in 1912 was awarded the cup for the best new plant in the show. In common with many other natives of New Zealand it will thrive as an outdoor shrub in the favoured parts of these islands, such as along the South and West Coasts, the South-West of Scotland, and in many parts of Ireland. At Kew the protection of a wall is necessary for it. In your district it should succeed as a shrub in the open ground, particularly if it is planted in a sheltered situation. It does best in a well-drained, fairly sandy loam. In districts where it is not hardy it forms a delightful subject for the embellishment of the greenhouse or conservatory. Under such conditions it will thrive in a mixture of loam, peat and sand, and may be stood outside during the summer months. The genus *Leptospermum* is not known by any other name, and is to be found in most books of reference. The typical *L. scoparium* was introduced as long ago as 1772.

ROSE GARDEN.

BLACK ROSES (R. A. M. C.).—The nearest Rose to this colour is *Château de Clos Vougeot*. It is a fine, very dark variety, and well worth growing.

PRUNING PENZANCE BRIAR HEDGE (Miss B.).—You can trim the hedge into shape now and shorten the top if it is growing too high. In order to keep the base of the hedge bushy, it is well to cut down to the ground one or two of the older growths each winter. We do not advise doing this now.

ROSE FOLIAGE DISEASED (M. R.).—The foliage sent is badly affected with orange fungus, and you should have all the foliage that falls burnt. If the tree is well sprayed with Bordeaux mixture, you will check the disease; but if it is only one tree affected, it might be advisable to destroy it. Unfortunately, quite a number of our Hybrid Perpetual Roses become disfigured by this fungus towards autumn, and the best plan is to spray well and frequently such Roses before the fungus obtains any great hold.

ROSE FOLIAGE ATTACKED BY SMALL GREEN CATERPILLAR (E. S. F.).—Your Roses are badly infested with the Rose slugworm. You should spray early in June and again now with nicotine wash or Hellebore wash. It is best to commence even earlier and continue at frequent intervals. You will find recipes for these washes in the "Enemies of the Rose," published by the Secretary, National Rose Society, 25, Victoria Street, London, S.W.

DARK ROSE FOR MASSING (R. F. C.).—*Château de Clos Vougeot* is the darkest Rose we have that is at all suitable for massing. There are other deep crimsons, such as *Louise Lilia*, a darker form of *General Macarthur*, which is excellent. *Edward Mawley* is also good, but neither of these comes up to the blackish colour of *Château de Clos Vougeot*. *Hadley*, a new variety, has been very fine with us. Its blooms are very shapely and at times a lovely blackish crimson, but it has a tendency to turn purplish. It is, however, a very fine Rose and well worth a trial.

ROSES AND LIME (Seaside).—There is no need to dress your Rose beds annually or even triennially with lime; in fact, it would be harmful to lime them too often. If you took a little soil to a local chemist, he would be able to tell you whether the soil still contained a fair amount of lime or not. If the lime seemed to be scarce, then give a dressing; but if the soil contained a fair amount of lime, leave it alone. A little bone-meal, given every second year, would do good, and an annual surface-dressing of decayed farmyard manure, applied early in May, would be beneficial; this manuring, however, you say is attended to. As the beds were made up with top-spit soil from a meadow, they ought not to be in poor condition.

THE GREENHOUSE.

CACTI (E. B.).—Messrs. Ellison of West Bromwich used to issue a good illustrated catalogue of Cacti, but it has, we believe, been discontinued since the war. A copy, however, might be available. We should say that the outgrowths represented in your sketch are side branches. It may be an *Opuntia*. A book on Cacti that we can thoroughly recommend is "Cacti for Amateurs," by William Watson, Curator, Royal Botanic Gardens, Kew. The name of the Fern is *Davallia dissecta*.

THE GARDEN.

No. 2337.—VOL. LXXX.

SEPTEMBER 2, 1916.

NOTES OF THE WEEK

A RECENT issue of the *Kew Bulletin* is devoted entirely to brief descriptions of new garden plants recorded in English and foreign horticultural and botanical publications during 1915. This list affords a great deal of information, with references to the publications from which it is compiled, and although some of the published names are doubtfully correct, the *Kew* list is of great assistance to the maintenance of a correct nomenclature. The publication is welcome, and we are pleased to note that a descriptive list is to be issued in the *Kew Bulletin* each year.

Rosa Pissardi.—

Although this fragrant white Rose and its pink variety are still flowering freely, it should not be forgotten that they flower both early and late. *Rosa Pissardi*, illustrated on another page of this issue, hails from the Caspian region, and is said to be a hybrid of *Rosa moschata*. The flowers have the sweet Musk-like scent belonging to this group, but they show their hybrid origin by blooming throughout the season. The pink variety is very vigorous, growing as rampantly as any of the old Ayrshires. The white is more moderate in growth, but the blooms are larger and more abundant. It makes an excellent pillar Rose with its pretty light green foliage and its large corymbs of pure white flowers and tiny pink buds.

Hybrid Californian Tree Poppies.—The beautiful *Romneya Coulteri*, which is now flowering in many gardens, is much better known than the comparatively rare *R. trichocalyx*. The two species are much alike, but the buds of the new-comer are clothed with bristly hairs, while those of the former are smooth. These two species have been crossed by Mr. W. H. B. Fletcher of Aldwick Manor, Bognor, who sent hybrids and parents for comparison to a recent meeting of the scientific committee of the Royal Horticultural

Society with the following note: "It will be noticed that the buds of the hybrids are intermediate, having traces of the bristly hairs of *R. trichocalyx* and the more egg-shaped form and especially the apiculate sepals of *Coulteri*. When the plants are seen in a row, as at my brother's vicarage garden near Chichester, the tint of the foliage of the cross-breds differs greatly from that of *R. Coulteri*."

Is *Romneya Coulteri* Self-Sterile?—Mr. Fletcher also makes the following interesting observations on the cross-pollination of *Romneyas*: "So far as my experience goes, the

"**E. V. B.**"—The Hon. Mrs. Richard Boyle, author of that charming book, "Days and Hours in a Garden," passed away recently at Brighton at the advanced age of ninety-one. Mrs. Boyle, who devoted much of her time to the garden at the Manor of Huntercombe, was a writer of great charm and refinement. Best known to the public under the initials "E. V. B.," her writings brought happiness to many homes and gardens.

Seed in Tapes.—The letter from an Italian reader, issue August 19, page 402, suggesting that English seedsmen should try this new method of sowing seeds, has brought a letter from a

new firm, the British Seedtape, Limited, who, as manufacturers of Seedtape, claim for it the following advantages: The seeds come as far as possible from the best English growers, are carefully selected and have at least a 90 per cent. germination guarantee. By special machinery they are accurately spaced along specially prepared tape and fastened in place. This tape is moistened with fish glue, which supplies a small amount of fertilising matter at the exact place where it is wanted. The paper also acts as a wick and draws moisture to the seed. No seeds are wasted, as the plants are correctly spaced and none are thrown away in thinning the rows. Labour



THE CALIFORNIAN TREE POPPY, ROMNEYA COULTERI.

Romneyas do not set seed unless artificially cross-pollinated. I have grown *R. Coulteri* for between twenty and thirty years, but never had any fruit set, until in 1913 I was able to use the pollen of *R. trichocalyx* for the first time. The flowers which are cross-pollinated bear fruit with the utmost freedom. Though the two forms are with me planted in actual contact, neither insect nor wind has the slightest effect in crossing them. I find *R. trichocalyx* to produce pollen very freely, but *R. Coulteri* much more sparingly." The fragrant *Romneya Coulteri* is flowering well this year.

of planting is greatly reduced. Unskilled labour can be used. Every plant has a chance to grow at its best, instead of being checked by its fellows. The British Seedtape, Limited, 14 and 15, Cockspur Street, London, S.W., conclude by making the following offer: "It will give us much pleasure to send a sample length of Seedtape to any reader of *THE GARDEN* who sends his address and mentions your valued paper."

*** Owing to the shortage of paper, readers who have not already done so are asked to order *THE GARDEN* to be delivered regularly, by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

"Flowering Plants for Shady Places."

May I suggest that the following plants might possibly do fairly well in the situation described under the above heading, issue August 12, page 395? *Solidago* (Golden Rod) in variety, *Anemone japonica*, *Chrysanthemum uliginosum* and *Thalictrum aquilegifolium*. These grow freely with me under very similar conditions, but the blooms of the Japanese *Anemone* are never very large, and the *Thalictrum* has a tendency to become leggy. The Golden Rods (*S. Virgaurea*, *serotina* and *Shortii*) are the most satisfactory of all. Some of the commoner sorts of Michaelmas Daisies



A HEAVY CROP OF MAY QUEEN POTATO IN A BERKSHIRE GARDEN.

would succeed, I think, but I have not tried them. I have, however, had very good results from the double variety of the Greater Celandine (*Chelidonium majus* fl.-pl.), which blooms well in almost complete shade and dry, poor soil.—D. P. B.

My Best Roses.—It may interest some of your readers to know that out of 160 Rose trees planted last autumn in a small garden in Maida Vale, Gustav Grunerwald is by far the most satisfactory. I have three plants, all in a bad position, where they get only the late afternoon sun, yet they all three do well. George Dickson, in a good position, promises to do equally well. After these come Hugh Dickson, Caroline Testout and Grace Molyneux. Mme. Isaac Pereire and Conrad F. Meyer have made vigorous growth but have not flowered, as they were hard pruned in the spring.—MAIDA VALE.

An Early Potato of 'Good Repute.—The varieties of first-early Potatoes are now so numerous that one finds difficulty in making a choice. Moreover, the varieties yield varying results on different soils. To those who have not the convenience of testing many varieties, owing to limited space, I would strongly recommend the variety Sutton's May Queen, shown in the accompanying illustration. This Potato still maintains its great reputation for earliness that it won on being introduced into commerce. It is of handsome appearance and unusually prolific; the flesh is white and of very fine quality. The haulm is very distinct and, being dwarf, the variety is adaptable for warm borders and small gardens or for forcing in frames. Although an early Potato in the true sense, it has, moreover, the merit of keeping well.—A. G. NICHOLS, *Oakfield Gardens, Mortimer.*

Pea Goldfinder.—Of Peas grown for utility, I have found for many years this variety most productive and in every way desirable, not only as regards flavour, but in its cropping qualities and its power of constitution in resisting mildew as a late variety. In height it grows 6 feet, sometimes more, according to cultural conditions, but the huge crop of pods it bears is sufficient compensation for the extra height it reaches. The pods generally are not more than 4 inches long, but they are tightly crammed with seven or eight Peas as a rule. I do not know the date of introduction, but I believe Messrs. R. Veitch and Son of Exeter sent it out, as I know it is a Devonshire variety. A friend there used to grow this variety only the whole season, and with success.—E. M.

The Rationale of Fruit Tree Planting.—The closing paragraphs of Mr. Jenkins' dissertation prompts one to make a few remarks on this important subject. In moving about country districts, one is apt to say there is no necessity to demonstrate the wrong and the right methods of growing fruit trees at Wisley or elsewhere, because in actual practice one sees plenty of such improper examples of culture. The inexperienced person who wishes to plant an orchard or

grow fruit in other sites makes two mistakes when he commences: (1) He is afraid of the expense or trouble in making proper preparation for the planting of the trees; (2) he wishes to be so economical that he must have a crop of grass at once as well as the fruit trees. He thinks it is an absolute waste of time and space to give up so much room to fruit trees; he must have the grass for his goats, his sheep, his pony or donkey, and, of course, his fowls. He scoops out a hole 2 feet in diameter, sticks in the tree, allows the grass to grow as quickly as possible close up to the stem of the tree, and wonders why the tree does not thrive! At one time I was in favour of preparing stations some 6 feet in diameter and 3 feet deep. Experience, however, teaches me that the land should be trenched entirely, or certainly the stations should be annually extended outside the rooting area, until the whole

of the space the trees occupy has been dealt with. Land deeply trenched is favourable to free growth, and when trees have become thoroughly established the grass may be allowed to come within a yard of the stem, but the longer the entire surface is kept free from grass the better it is for the trees. It is not purely a question of the grass robbing the trees of moisture that they do not succeed in ill-prepared soil, but it is owing to the fact that the roots do not ramify sufficiently to ensure freedom of growth, which is the precursor of perfect health if all other conditions are of the right character. Mr. Jenkins mentions in his closing paragraph the growing of Apple trees on lawns. There he opens the door to further discussion and an alteration in the methods adopted to induce the trees to grow satisfactorily. Closely kept lawns do not absorb so much moisture as where the grass is allowed to grow long, as in the case of making hay. Sufficiently large holes should be prepared on a lawn preparatory to planting, say, 10 feet in diameter, and the turf kept from the stems of the trees for the first two years to the extent of a yard. If this space of bare earth is objectionable, low-growing flowering plants might be grown in summer, with bulbs in spring, without detriment to the growth of the fruit trees, because facilities would still be provided for supplying the roots with moisture. With care, Apple trees may then be cultivated on lawns with a distinct prospect of success.—E. M.

— I was much interested in the article on this subject by Mr. E. H. Jenkins and the illustrations on pages 408 and 409, issue August 19. Nearly thirty years ago some Apple trees were planted in a nice sheltered position in a field in the southern part of Hampshire. Only a few feet of ground were trenched in the grass for each tree. In a few years' time the grass had grown up to the stems of the trees, and the latter were in a dying condition. The soil was light and gravelly. In another case in the same district, the soil clayey, the young trees were planted in trenched ground, the whole being cultivated. They did remarkably well till, about five years afterwards, the soil was "grassed." From that date the trees failed, and would have been very unprofitable if the head-gardener had not dug up the soil again. In two other gardens in the same district fruit trees were planted in trenched, cultivated land, and their progress was such that root-pruning had to be done, in some instances every alternate year, and in others every third year. I have had similar personal experience in Lancashire, Cheshire, Warwickshire and Hampshire, counties wide apart and with varying soils. One good cultivator told me that his experience was that none, not even old trees, did as well with grass growing right up to the stems as those where the soil was bared and judiciously worked. Intending planters should take note of the facts given in the article referred to, and benefit accordingly.—G. G.

— The illustrations in the issue for August 19, pages 408 and 409, will, I trust, do more than pages of writing has effected in the past to convince people that grass is injurious to fruit trees. Mr. Spencer Pickering proved this years ago by the experiments at Ridgmont. We most of us knew it; but some of us, like Mr. Jenkins, thought that the absorption of moisture by the grass roots was the chief evil. Mr. Pickering thinks that the grass gives off a toxin which poisons

the fruit trees; and certainly trees planted under a coating of cement to keep them dry did not suffer to nearly the same extent as those did under grass. Apples worked upon a surface-rooting stock like the Paradise suffer more than those growing upon the deeper-rooting Crab or free stock, and we all know that on certain soils standards on Crab will flourish and produce fine fruit in grass orchards; but, even so, they should be planted upon cultivated land at the start, which may subsequently be laid down to grass, provided, first, that the land is really good and suited to Apples, and, secondly, that it is grazed by young cattle or sheep fed with oil cake. A mown orchard is an orchard on the way to ruin; and, when all is said, I much prefer a cultivated orchard.—

A. H. PEARSON, *Lowdham*.

Musa Cavendishii at the Botanic Gardens, Regent's Park.

The plant of the well-known Banana, *Musa Cavendishii*, seen in the accompanying illustration is remarkable for the very rapid and satisfactory growth it has made in a short time. It seems hardly credible that in the autumn of last year it was a tiny sucker taken from its parent plant. In March it was planted in a brick receptacle 2½ feet square and placed in the large tank where *Victoria Regia* and other tropical aquatics are known to thrive so well. It should be mentioned that the Banana has been treated throughout with Wellsons' Manure, which has been a great help to it in making this luxuriant growth and leafage. It only remains to be seen if it will produce fruit in proportion to its size, and there seems every reason to anticipate that it will do so.—BOTANICUS.

Unsalting of Preserved Beans.

The unsalting process of preserved green Beans does not appear to be generally understood. The Beans must be thoroughly washed in one or two waters, or in running water on a sieve before cooking. This washing completely removes the salt adhering to the surface and a part of that which has penetrated inside the Beans. This, however, is not enough. The water, by osmosis, cannot take away at once the whole of the salt contained in the Beans, because when it contains as much salt as the Beans the osmosis process stops. Therefore the water must be changed and fresh water used again and again until the Beans are sweet. Another well-known fact is that water dissolves the greatest quantity of salt at 33° Centigrade; moreover, warm water penetrates the Beans quicker than cold, therefore the Beans are put on the fire in water, and, long before cooking, this water is again poured off through a sieve. Generally this is done twice. After this the Beans are quite sweet and can be cooked.—H. V.

Gentiana Kurroo.—The illustration on page 403, issue August 19, of this beautiful and rare Himalayan kind recalls the occasion of my first making its acquaintance in the then new rock garden of

the late Mr. Whitehead when residing at Bickley, Kent. That was in August or September, 1880, when the species was quite new to cultivation, it having been, according to "Nicholson's Dictionary of Gardening," introduced in 1879. At Bickley it was grown in an open position in peat and loam, and, regarded as a moisture-loving kind, was treated accordingly. Since first meeting it I have seen it only a few times, and the plant has always been rare in cultivation. The treatment meted out to it at Aldenham, as recorded by Mr. H. Craven, of "peat, loam and ample moisture at the roots," agrees with that given at Bickley. Granite chips for high alpine vegetation in those days, however, were not the vogue;



MUSA CAVENDISHII MAKING LUXURIANT GROWTH IN ITS FIRST YEAR.

but if Mr. Craven finds them a success, no further proof is needed. The most interesting part of your correspondent's note, however, is that the plant "does not seem at all difficult to grow, flowering about the third year from seed"; hence it is to be hoped that he will persist in raising seedlings, so that gardens may be enriched by scores or hundreds of plants of a beauty so rare instead of having to be content with individuals at rare intervals as now. The rosette of characteristically narrow linear leaves, trailing stems and flowers are well shown in the illustration, and so distinct withal that no lover of alpine, once he has seen the true plant, is likely to forget it.—

E. H. JENKINS.

THE INTRODUCTION OF THE FLORIST'S AURICULA

IT is suggested by the writer of the article under the above heading, page 392, issue August 12, that the reference I made to Solomon Page's famous Auricula Champion would be enhanced if the date of introduction were given. I do not think that in the case of most of the very oldest florists' flowers such information is possible. I know of no records available where details of the raiser and date of introduction are given. Such details are only to be found of later productions. The most that can be ascertained in many cases is the first mention that can be found of any particular variety in some of the old florists' books. In the case of Solomon Page's Champion, I find it mentioned as early as 1815 in the first edition of Emmer-ton's "Treatise of the Auricula." How long before that date it was raised I cannot tell.

There is in my possession an old catalogue of florists' flowers offered for sale by the famous Maddocks of Walworth. It is dated 1792, and under the heading of Auricula no variety bearing Page's name appears. By some of his compeers Maddock was not considered to be so accomplished a cultivator as others, but he evidently had a very comprehensive collection of Auriculas at that time, there being no fewer than 350 to 400 sorts in his list. The raisers' names in the possessive case precede the varietal names, as was the custom in those days. Buckley, Bury, Chorlton, Clegg, Dickinson, Foden, Gorton, Grimes, Grundy, Harrison, Hervey, Hoyle, Hughes, Maddock, Metcalfe, Potts, Slatery, Stretch, Taylor, Wilkinson and others were raisers who had each obtained quite a number of seedlings. From this it would seem probable that Page's Champion first saw the light between 1792 and 1815, but that is not certain, because Page may not have supplied his flowers to Maddock.

The mention of the Grand Paisant reminded me of the interest that the old French florists

took in this very popular flower. A hurried search through my old French Auricula books reveals the fact that very few named varieties are given in them. In one of the oldest—"Connoissance et culture parfaite des Belles Fleurs," published in Paris in 1696—we read that although the Auricula is French, they were not the first people to be acquainted with its beauties. "We must render justice," says the author, "to whom it is due. The Flemings are much more attached to it than we are." Lille was evidently a town famous in those days for florists' flowers, and the writer says that after having purchased Auriculas from that place and sown the seed, the French were then as rich in their collections as the

Flemings. It must be remembered that when French floricultural writers talk about Flemings, they more often than not mean the French Flemings in and around Lille, then usually spelt L'isle. That part of Flanders was ceded to the French in the seventeenth century.

In another interesting old work on the Auricula, published in 1732, the author gives a list of the names of the most celebrated cultivators and the places of their residence. Paris, Abbeville, Amiens, Neele, Chauny, Noyon, Soissons, Laon, Val St. Pierre, St. Quentin, Cambrai, Douay, Lille, Ypres and Mondidier are specially named. According to this writer, the Auricula is divided into three sections, "les Pures, les Panachées ou Tracées & les Bizarres." These divisions are defined, and later we learn that the new bizarres are those that came from England. The few names of varieties given are L'Affriquain (1731), Cyrus (1729), Persée (1731), Passe-dominant (1731), Le Brillant (1730) and Bizard du Monde (1730). These old French Auricula growers placed their plants in what they termed a "theatre," a place something similar in construction to that set up by the old German Carnation-growers. It was really a series of step shelves raised one above the other, resembling the arrangement shown in the upper part of the frontispiece to my "Florist's Bibliography" (reproduced herewith), with a covering placed sufficiently high to allow the air to circulate. The author tells us that in order to show up the colours of the flowers the background should be painted black.

C. HARMAN PAYNE.

TWO FINE ASHES

SITUATED on a slight eminence less than a mile outside the village of Upminster in Essex is Cranham Hall, now a farmhouse occupied by Mr. Eve, but formerly the home of General James Edward Oglethorpe, the founder of the State of Georgia in the United States. The old garden walls with their wrought-iron entrance gates still remain, and a feature of the place are some very ancient Yew hedges. To tree-lovers, however, the most interesting things there are some Ashes growing near the house. Two of them are of notable size, being larger than many of their kind recorded in the "Trees of Great Britain and Ireland," by Mr. Elwes. One is *Fraxinus angustifolia*, whose trunk measures 8 feet 4 inches in girth at 5 feet from the ground. It is a bushy tree perhaps 50 feet high. This species of Ash, a native of the Mediterranean region, is to be met with in old gardens, but is rarely planted in these times. Yet it is one of the most graceful and beautiful of all deciduous trees, having an almost Fern-like elegance of foliage. It must not be confounded with the narrow-leaved form of common Ash (*F. excelsior angustifolia*), from which, as well as from most other Ashes usually grown in gardens, it is distinguished by being perfectly glabrous. The other notable Ash at Cranham Hall is the one-leaved variety of common Ash, *F. excelsior* var. *heterophylla*. Its trunk is 8 feet 7 inches in circumference, and it is about 65 feet high. This curious tree, instead of the normal nine or eleven leaflets pinnately arranged, has a simple or undivided leaf, occasionally, however, supplemented by one or two lateral leaflets. Both trees at Cranham Hall are grafted, and may date back to Oglethorpe's time. It is a place of pilgrimage for many good citizens of the State of Georgia. Oglethorpe died here on July 1, 1785.

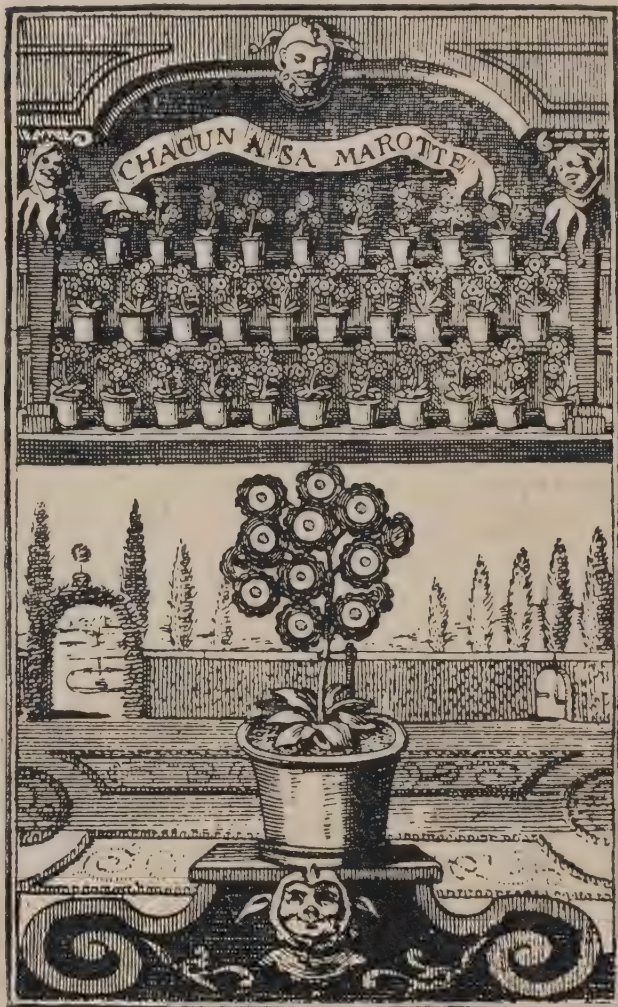
W. J. BEAN.

THREE GREAT BRITISH WORKS ON GARDENING

(Continued from page 417.)

BY THE REV. JOSEPH JACOB.

DO not think I am very wide of the mark when I call "Nicholson's Dictionary" the best general modern work on gardening. It is not so all-embracing in its scope as "Loudon's Encyclopædia," but it contains a truly wonderful list of plants, with hints on their culture and a description of all the species mentioned. The derivations of the generic names are given, and also the habitats and date of introduction of the various members of the different



FRONTISPIECE OF THE—
"NOUVEAU TRAITE DE LA CULTURE PARFAITE DES
OREILLES D'OURS SOU AURICULES."

(GUENINS) 1738.

Note the "Theatre" for showing Auriculas in the upper part of the illustration.

families; and, in Supplement No. 1, lists of plants for various purposes, a pronouncing dictionary, a list of Greek root words and their derivatives, synonyms, a table of times of flowering, and others of the colours and heights of plants or flowers, all of which go to form a veritable enquire within for everything connected with practical gardening. I ought not to omit to say that there are black-and-white illustrations galore and a certain number of full-page coloured ones.

Notwithstanding "Hurstcot's" animadversions upon this most comprehensive work, I have found it of the greatest utility, and in using it I am proud to think that I am in the company of such men of gardening light and learning as the late Canon Ellacombe, Mr. E. A. Bowles and Mr. H. J. Elwes. In an article on "Some Books for an Amateur Gardener's Library" in the Journal of the Royal

Horticultural Society for April, 1915, Mr. Bowles writes: "If only the contents of the supplement and the supplementary volume published in 1901 were incorporated with the whole work, and brought up to date, it would be as perfect as any work could be; in fact, what its title-page claims for it, 'a practical and scientific Encyclopædia of Horticulture.' Its plan is excellent."

I now come to Philip Miller's great work, "The Gardener's Dictionary." As I am dealing with the book and not with the man, I need only say that our author was born, as it were, in the purple in the year 1691, for although authorities differ as to what his father really was, they are unanimous in agreeing that he had one and that he was engaged in some way in horticulture. In 1722 Miller was appointed gardener to the Apothecaries Company at their garden at Chelsea, which position he occupied until 1769. He died in 1771.

As my subject is his *magnum opus*, "The Gardener's Dictionary," and as it was the publication of this work that made him so famous in his lifetime (as it has in like manner kept his memory green since his death), I will at once pass on to its detailed consideration. Putting two and two together, I am inclined to think that the compilation of "The Gardener's and Florist's Dictionary, or a Complete System of Horticulture," which was published in 1724 and which appears to have been the joint production of a society of gardeners of which Miller was the secretary, gave him the idea of a greater work, and that the necessary intercourse with his collaborators instinctly led him to feel that he was the man for the job. Accordingly we find him publishing in 1731 what (as I think we may gather from the title-page) he himself looked upon as the first edition of "The Gardener's Dictionary." This was a good thick small folio volume "adorned with Copper Plates." From their number we might almost infer that he felt his book would be "When unadorn'd, adorn'd the most." They are so few and far between, and not at all the sort of thing we should expect to find in any modern work with that alluring addendum to its title. As time went on he seems to have felt the necessity of illustration. Accordingly in 1755 there appeared the first number of what was originally designed to be a picture book of all the genera mentioned in the dictionary. Its ultimate form was a two-volume work (published in 1760) containing 300 illustrations, some of which were signed by his brother-in-law, G. Ehret, one of the most famous of all botanical painters.

The dictionary went through eight editions in Miller's lifetime, and on each occasion it was brought up to date both from a scientific and a practical point of view. The ninth (1797—1807), which everyone should possess, was edited by Thomas Martyn, Professor of Botany at Cambridge, and this was considered such a complete work that Johnson in his "History of English Gardening," published in 1829, or twenty-two years after the dictionary was finished, calls it a "standard practical work, never to be superseded." It is now, however, mainly of academic interest, so many and so great have been the changes in horticulture in the last hundred years. Still, a book which earned for its author in his lifetime the title of "Hortulanorum Princeps," and of which no less a man than the great Linnæus could say, "Non erit Lexicon Hortulanorum, sed Botanicorum," is one that a garden-lover will like to have on his bookshelves, if for no other reason

than as a silent tribute to one to whom all succeeding horticulturists owe so much. The work was published in an abridged form in no fewer than six editions (1735—1770). It was also translated into Dutch (1746), German (1750) and French (1785). The early editions of "The Gardener's Dictionary" are worth about 5s. or 7s. 6d.; Martyn's edition, in four volumes, from £1 to £2, according to the style of binding; the 300 coloured illustrations, in two volumes (first and best edition, 1760), from £3 to £4, according to the binding and the condition of the plates; late editions of the 300 coloured plates, about 30s. I have been unable to ascertain the price of "The Gardener's and Florist's Dictionary" (two volumes) published in 1724.

NOTES FROM CHAMONIX

BY EDWARD H. WOODALL.

LASTREA OREOPTERIS.

BROUGHT up from earliest childhood to love this native Fern and its delicious fragrance, it is a pleasure to find that in the Alps it seems to smell even sweeter still. Perhaps the purity of the air, free from even the faintest trace of smoke, may have something to say in the matter; but certainly in these glowing summer days the air on the mountain side is full of its sweetness where it grows abundantly. It is by no means an uncommon Fern in the North of England, but somehow it is rarely seen in the wild garden; hence this note, for the idea prevails that *Lastrea recurva* or *Fœnisecii* is the Hay Fern and the only fragrant one that is worth growing. True, *Lastrea Oreopteris* is not evergreen like *L. recurva*, and it requires a trained eye to distinguish it from the common Male Fern at a little distance, so that, perhaps, is one cause which makes it less of a favourite than it should be. Another cause may be that it is not the easiest of Ferns to transplant, unless in the young state and with a good lump of soil and roots. I have, indeed, heard some folk say they did not consider its foliage fragrant. To all such I would say, "Gather a young frond, bruise it slightly, and then apply your nose to it"; if then you do not recognise its aromatic sweetness, you and I will part company thereon!

Even Mignonette has not a more health-giving breath of ozone in its sweetness. The other day I came across this Fern in quantity growing round the base of a big grey granite boulder that had found a resting-place on the turf. A good tuft of the rose red *Sempervivum montanum* was still showing a few bright flowers on the grey stone, and on the damp turf were quantities of the white stars of *Parnassia palustris*, or Grass of Parnassus, all around. The picture was so simple and so charming that I think all who have the opportunity will do well to try to reproduce it in miniature. And yet another instance of its charms. At

this season *Cyclamen alpinum* or *europæum* is beginning to flower on moist and partly sheltered banks where *Lastrea Oreopteris* is happy, and the particularly fresh green of this Fern is the most ideal setting for the purplish rose of the *Cyclamen* flowers. The combination of scents, perhaps, is rather bewildering, but lovers of sweet things can decide for themselves which is best; at any rate, I should vote for the colour combination of the Fern and the *Cyclamen*.

In the middle of August there are not many things left that can give such an impression of spring sweetness and greenery when the first signs of autumn decay appear. I have the impression that *Cyclamen europæum* is not long lived under English skies and in English winters, where mildness and frost succeed each other with bewildering rapidity; but, at any rate, *Cyclamen hederæfolium* thrives well enough and naturalises itself freely in many places, especially not far from the sea, and though a little later, it would carry out the same idea in colouring. There is a pale form of this *Cyclamen europæum* that is very attractive in my eyes and harmonises particularly well with a tuft of common Heather or Ling which so often grows not far away; a

many alpine cannot adapt themselves to the inconstancies of an English winter and the pale suns of summer—neither hot enough to stimulate them nor cold enough to send them into the winter sleep for a sufficient rest; hence in the end they die of exhaustion.

That handsome-leaved plant *Veratrum viride* grows in great quantities on many hillsides and is the cause of many disappointments to newcomers, who think they have found a treasure until they discover the remains of flower on some belated growth. It seems the constant companion of the orange *Arnica montana*, so much gathered by tourists; but while the healing properties of *Arnica* are well known, those of the *Veratrum*, so vaunted of old as a cure for folly and insanity, are entirely ignored.

THE GLORY OF THE SNOW

THIS is the popular name given to a beautiful little blue flower that opens during the early days of spring, when vegetation generally is awakening from its winter slumber. Botanically the plant is known as *Chionodoxa Luciliæ*. It has a small bulb, about the size of that of Elwes'



WHITE STAR-LIKE FLOWERS OF THE GRASS OF PARNASSUS IN A STREAMSIDE GARDEN.

natural and successful combination. Here, as elsewhere, this season has been unusual in its extremes of cold in June and heat in August; and the other day, on the mountain above the Mer de Glace, the Rose des Alpes, or *Rhododendron ferrugineum*, was flowering still in patches, having only lately been released from the snows, and consequently many weeks later than it should be; and the little *Soldanella*, too, was just emerging from the snow patches and flowering immediately it was released.

The sudden change of temperature from freezing point to a quite roasting summer sun must prove an active stimulant to vegetation, but I wonder if the plants can fully perfect their growth this year when only released from the snows in the second week of August. No wonder that

Snowdrop, and is excellent for planting towards the front of the shrubbery or in beds of deciduous shrubs. The bulbs should be planted within the next few weeks about 3 inches deep and subsequently left alone. Treated thus they increase well, and give quite a carpet of their china blue, bell-shaped flowers in March. There is an even more pleasing variety known as *sardensis*. This is deep blue in colour, with cinnamon red flower-stems. The blossoms open just a little later than those of *Luciliæ*. It is a very charming flower for planting in small colonies in the rock garden or for the more prominent places among shrubs. Seeds are produced in abundance, and if allowed to ripen and fall, germinate very freely, many plants being obtained in this way in the course of a few years.

ROMNEYA COULTERI

OF the many flowers which California has afforded us, the subject of this note is perhaps the most gorgeous and stately. It is, moreover, one of the least tender of half-hardy plants, flourishing in its native state on hills of considerable height, where the winters are often cold though dry. There, on the heights of Matilija (from which it takes the name of Matilija Poppy), it flourishes in company with the Ceanothus, the shrubby Mimuluses, the Dendromecon or Tree Poppy, some of the many wonderful Liliiums which adorn our borders and conservatories, and numerous other flowering plants of great beauty. But, as one who has had some first-hand experience with Californian flora in its native soil can testify, the Romneya can be grown outdoors in most parts of this country to a perfection equal to that which it attains in the valleys of Matilija.

It likes best a well-drained soil of a rather gritty character, one that does not get waterlogged in winter and where the plant will get as much full sunshine as possible. The best way to make a beginning with Romneya Coulteri is by purchasing roots (preferably in pots) in March, but in very mild districts they may be put in in autumn. Once established, the less disturbance the plant gets the better, and, indeed, it requires practically no attention other than a covering of ashes in winter and a top-dressing of old manure or leaf-mould in April. About the latter month the foliage commences to appear, and it will grow lustily, putting forth an abundance of graceful, deeply cut leaves of a glaucous green, until the woody stems attain a height of 5 feet or 6 feet. The large and sumptuous flowers then appear from the tips and lateral growths. These often measure 7 inches or 8 inches in diameter, the broad, pure white petals being of a beautifully crinkled, crêpe-like texture. The large and

conspicuous centre of stamens is a rich, shining gold, and, unlike most Poppies, the flowers last many days and are deliciously fragrant. The blooming season extends from July to September.

Though the foliage is practically evergreen, the best results are obtained if the stems are cut down to the ground in autumn. This, I am aware, is not a universal practice, but I am convinced that it is preferable to leaving the plant intact throughout the winter.

The Romneya does not germinate freely from seed, though it produces the latter freely. Even in California this difficulty in propagation is experienced, but it is said by growers over there that seed previously soaked for a few hours in weak lye can be much more readily started. The comparatively rare variety of Romneya called trichocalyx is rapidly becoming more popular. This is practically a dwarf form of Coulteri, but it has some marked differences, notably the hairy calyx and more glaucous grey foliage, and in some districts it appears to be even a more abundant bloomer.

A. T. JOHNSON.

A PRETTY ROSE EFFECT

A VERY pretty effect is produced at Kew by the use of Rose Dorothy Perkins in the vicinity of water. The water in the pond near the Palm House is several feet below the level of the surrounding ground, and along one end and parts of two sides walls rise to the level of the ground. A gravel path runs along the end, and nothing can be done to beautify the wall, but at the two sides plants of Rose Dorothy Perkins have been planted so that the branches hang over the walls and touch the water. When the Roses are in full flower, there is the double effect of the Rose flowers and their reflection in the water. The branches are cut out each year, so that the plants maintain a light and graceful character and continue to bear the maximum number of flowers.

W. D.

ERYNGIUM ALPINUM

It may safely be said that this is the handsomest of the several beautiful Sea Hollies. The one most familiar in gardens is *E. Oliverianum*, commonly but wrongly called amethystinum, always



THE ALPINE SEA HOLLY (*ERYNGIUM ALPINUM*).

a beautiful plant, though when seen in comparison with *E. alpinum* the latter is clearly the better. The dense head of bloom, a cone-topped cylinder of crowded flowers, rises in the same manner as a central boss, but less Teasel-like because the spines between the flowers are shorter. But the glory of this great Sea Holly is in the fringes of spiny bracts, of which the upper and longer row, measuring nearly 3 inches, stand up in graceful cup-like form, while the lower and shorter row are slightly depressed. In *E. Oliverianum* they are fewer, carried almost horizontally, and are pinnate; in *E. alpinum* they are richly pinnatifid or twice pinnate, so that the spines are much more numerous. The spines also are of a slighter and more silky character; the central cone appears to rise in a large fringed cup standing in a smaller fringed saucer. The stem leaves are almost a repetition of the bract, but with a broader blade beautifully veined with white, these more distinctly leafy characters becoming accentuated towards the lower part of the stem. The radical leaves of young plants are entire, and strongly cordate at the insertion of the stalk. The bloom-bracts are of a beautiful steely blue colour inside; the stems are also steely blue. The Sea Holly Order is classed within the Umbelliferae, though the appearance has little in common with the more generally familiar form of the plants of this great family. Mr. Correvois has told me that where *E. alpinum* is wild it grows in single examples only, never in large groups or colonies. To our great advantage we can easily correct this habit in cultivation by sowing seed and planting in groups as we will. G. J.



ROSE DOROTHY PERKINS BY THE WATERSIDE AT KEW.

THE ROSES OF AUGUST

"Within the gardens once again they met
That now the roses did well-nigh forget,
For hot July was drawing to an end,
And August came the fainting year to mend
With fruit and grain . . ."

—WILLIAM MORRIS.

WERE the author of "The Earthly Paradise" to look down on our Rose gardens to-day, he would see that August no longer leads us to forget our Roses, but rather brings to perfection some which need a long period of warmth behind them before they will yield their full beauty.

In a cool summer it is not till July has passed away that Victor Hugo can be relied on to give its superb scarlet crimson blossoms, and many of the full Tea Roses whose buds develop slowly are frequently finer in August than they have been in the earlier part of the summer. It is, however, rare to find our August Rose gardens so full of beauty as they are this year. A wet June, followed by a cold and sunless July, have much retarded the blossoming of the Rambler Roses, and it has remained for the bountiful August sunshine to call into beauty our Dorothy Perkins, Evangelines, Hiawathas and Excelsas, and with the strength of its rays to paint them of more than usually lovely hues.

Evangeline has been surpassingly beautiful. We have some half-dozen plants, nearly all grown from cuttings, of this Wichuraiana in different parts of the garden. They usually flower about the second week in July, but this year they were not in full bloom till the beginning of August; thus they came out just when the weather became hot and sunny. The arches and pillars over which they are growing have been covered from base to top with the delicately scented, wild Rose coloured blossoms. The flower sprays are very graceful, the large single blooms not being crowded together as they are on many of the Wichuraianas, and it is difficult to say whether their delicious fragrance or the delightful combination of the fresh green foliage with the soft rose pink and blush of the flowers is Evangeline's greater charm.

Coquina, another single pink Wichuraiana with much smaller flowers, is a late flowerer and has been looking very well, but it lacks fragrance. Babette, a darker Dorothy Perkins, very much the colour of the Polyantha Pompon Orleans Rose, has been very fine this month; so has Dorothy Perkins herself and her sports Lady Godiva and Lady Gay. White Dorothy too often comes splashed with pink to be really satisfactory.

Among the perpetual climbers, Lady Waterlow, with its handsome foliage and delicately tinted flowers, is looking its best. The old Papillon and the pink and white Pissardis are flowering very freely; so also are the bright pink Hybrid Teas Dawn and Lina Schmidt-Michel.

Many of the dwarf crimson Hybrid Teas, such as Richmond and General Macarthur, lose their beauty of colour and shape in the hot August sunshine; but the newer Dora von Tets seems better in this respect, and we have picked some extremely bright crimson flowers of this variety all through the month. If it were only a little stronger in the stalk, this would be quite a first-class bedding Rose.

Dean Hole, on the other hand, comes a far better colour in the really hot weather than it does under cooler conditions; lately its blooms have been of a quite bright rose pink shade. I usually look upon the delicate pink Princesse Marie Mertchersky and the coppery pink Betty as good August bloomers; but this year Betty

single ivory white flowers. The flower-buds are curiously blunt and thick; before opening they are a soft grey green and look almost like young Filberts. They are produced freely all along the shoots.

In the Rose shrubbery the beautiful single cream Altaica is flowering quite freely, and by so doing is contradicting the remark I made, when writing last month, that our summer Roses would bloom no more. This Rose usually produces a



A FRAGRANT ROSE OF LATE SUMMER: ROSA PISSARDI.

(Slightly reduced.)

is suffering badly from black spot and Princesse Marie Mertchersky has flowered indifferently. The Polyantha Pompon Orleans Rose is, and has been, unusually brilliant, and all visitors to the garden have been much attracted by its gay and abundant blossoms.

On an east wall the Macartney Rose produced its first flower of the year on August 16. In habit and foliage it is very distinct. The glossy green foliage, with its incurving leaflets, has a thick and solid appearance; so have the

few blossoms late in the summer, but I have never before seen it flowering abundantly at this time of year. Possibly the wet June caused it to grow so quickly that the new shoots have been given time to produce a second crop of flowers. The two American species, *Rosa nutkana* and *R. Nuttalliana*, are always late in blooming; and the fragile looking *R. Webbiana* seems worthy of being called perpetual, for it has been flowering all through the summer, and is wonderfully pretty now with its single blossoms of palest

pink set off by glaucous foliage and soft strawberry pink stems.

The Rose shrubbery or thicket gives us our first Rose of springtime in the flowering of *Rosa sericea*, and this same Rose appears to be the harbinger also of autumn, for its bright orange berries are abundant in early August, and by the middle of the month are strewing the ground around the plant. *Alpina* and its varieties are also fruiting now; so are some of the early *Rugosas*. But in spite of this foretaste of autumn we can bring August to an end on a happy note so far as our Roses are concerned. The warmth of the first fortnight, followed by the showers

in the third week, should augur well for the September blooming of our Hybrid Teas and Teas.

Already the hand of the pruner is at work on the ramblers, cutting out the old shoots and tying in the new; and many of the dwarf Roses would benefit by having some of the wood that has flowered cut away from the middle of the plants. This applies, of course, chiefly to such Roses as *La France* and many of the Hybrid Perpetuals, which naturally grow into somewhat dense bushes.

A good deal of syringing and sulphuring is done in fine weather to keep mildew and other fungous diseases at bay, and, where possible, all leaves affected by red rust and black spot should be picked off and burnt. This in a large garden and where labour is short is, I know, a counsel of perfection, but in gardening, as in other things,

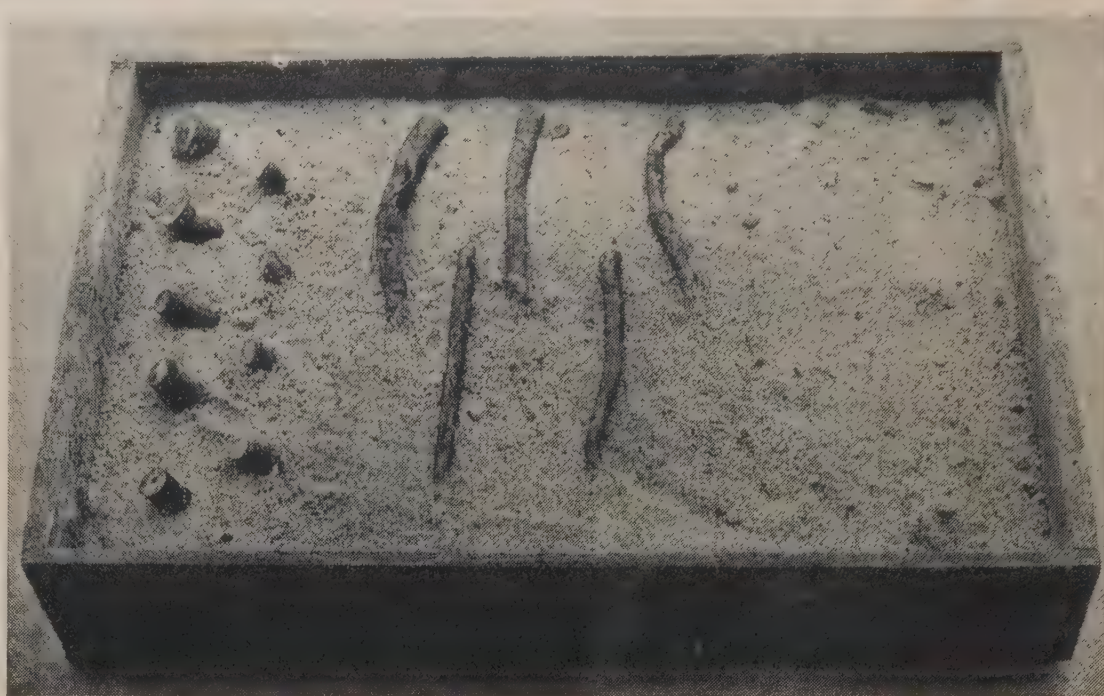
"A man's reach should exceed his grasp
Or what's heaven for?"

WHITE LADY.

BEAUTIFUL HOTEL GARDENS IN WESTMORLAND

BY THE REV. DAVID R. WILLIAMSON.

I RECENTLY paid a short visit to the county of Westmorland for the special purpose of ascending Helvellyn (3,118 feet high), one of the two highest mountains in England, which I successfully accomplished on an exceptionally clear, cool and altogether energising day. During my limited sojourn in that exquisite region of mountains, valleys, lakes, rivers and glens I had the privilege of seeing several very interesting and admirably kept gardens, including those of the Milcrest and Ullswater Hotels, which are situated quite close to the grandest of English lakes, whose beauty has sometimes been reminiscent to tourists of that of Lucerne. Nothing in England at least could be more impressive



INSERTING ROOT CUTTINGS OF ANCHUSA IN A BOX OF SANDY SOIL.

than the scenic surroundings of those gardens, with the lake dreaming in the sunlight in front and the great mountains soaring everywhere around, with the woodlands at their feet. I saw in those gracious gardens many charming flowers, and especially fine borders of Begonias and Roses, of the loveliest hues. Their uniquely beautiful situation gave them a charm that was quite supreme. On the morning of my departure I saw in one of those highly attractive gardens some of the finest representatives of the modern, richly coloured "decorative" Roses, including the Lyon Rose and Rayon d'Or. The "Snow Queen," which still remains the most commanding in its beauty of all pure white introductions, was grandly grown. Wichuraianas, such as Dorothy Perkins, Lady Gay, Gardenia and Alberic Barbier, were manifestly full of embryonic

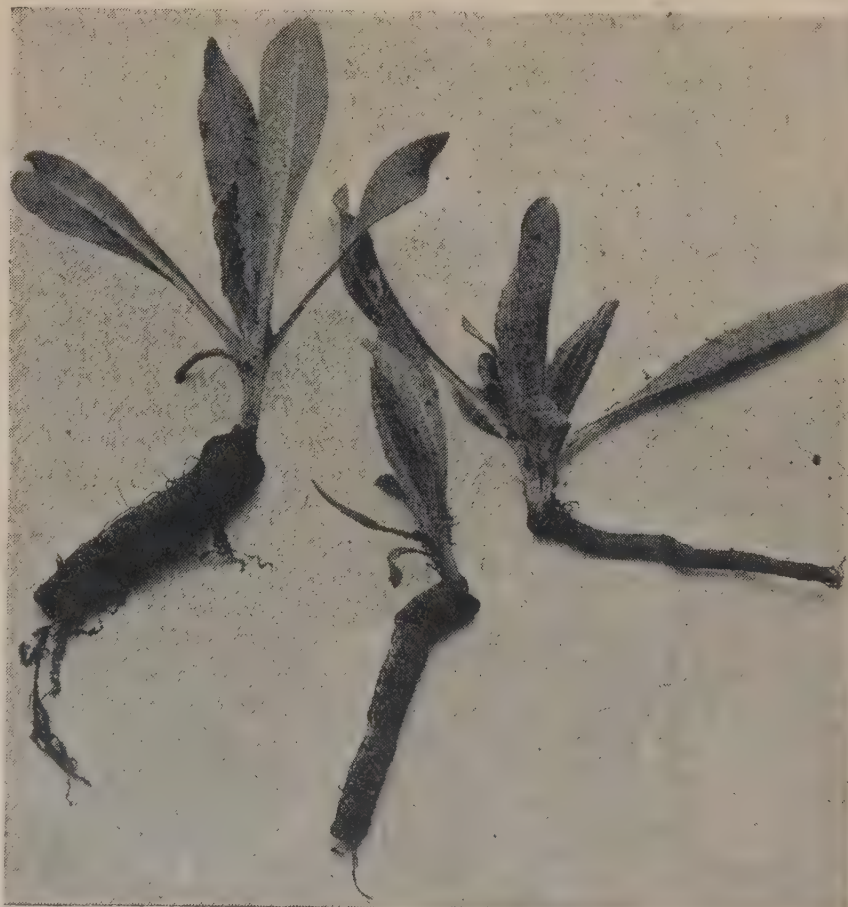
lifted and the thick roots cut into pieces from 4 inches to 6 inches long. These should be laid fairly close together in boxes filled with sandy soil, and then arranged in a cold frame or under the staging of a cool greenhouse.

A FEW WORDS ON NORFOLK ROSES

I HAVE heard it said more than once that land which will grow good corn will grow good Roses. Such being the case, we who reside in the broad, wind-swept shire of Norfolk know, and we think the knowledge has passed far beyond the confines of our own border-line, that good Wheat and good Barley are grown on the fertile lands of the county. And many know, though all do not, that scattered here and there throughout the county are situated Rose nurseries wherein the plants, judging by their vigour and health, seem to say, "This is as we should be."

The writer recently visited two or three of the prominent nurseries in Rose-time this year. In the fields of Messrs. Daniels Brothers, Limited, at Town Close, Norwich, in spite of the shortage of labour, the evidence of clean surroundings was very apparent, nothing to invite disease, and everything done to admit air and light, those essentials for healthy, clean growth. I am not going to dilate upon this or that variety; I will leave that to those learned writers in *THE GARDEN* who are ever giving us their opinions. Suffice it to say that I met all the new sorts and all the best.

At the Rose fields of Messrs. Hobbies, Limited, out in the very open country near to the town of Dereham, in spite of the loveliness of the whole thing one seems to get physically tired in wandering up and down long rows of Roses over acres and acres of ground; but one is never too tired—if



THE CUTTINGS MAKING GROWTH.

loveliness and already on the confines of a luxuriant bloom. I should add to these fragmentary observations that the wild Roses adorning the waysides in that picturesque region are by far the finest I have ever beheld.

ANCHUSAS

THE Dropmore variety of *A. italica* is one of the finest plants for the herbaceous borders, and to obtain the best results occasional propagation is essential. When plants are secured from seeds, various shades of blue are obtained, so the best plan is to mark any plant of special merit and increase the stock by root cuttings.

The old stools should be

of course, he has any interest at all—to note the glistening foliage and the profusely tinted, robust growths coming up for the building of strong plants for dispersal at the right time.

And so it was with the plants of Mr. Morse at Eaton, just outside the confines of the old city of Norwich. The evidence proves that the soil suits them and creates such vigour that must be for the good of the future welfare of the plants wherever they are next planted.

AYTCH PEA.

WINTER-FLOWERING SWEET PEAS

SWEET PEAS are always welcome, and to be able to pick a nice posy or sufficient to decorate the dinner-table in January is a delight to all flower-lovers. Some seed houses offer special

winter-flowering kinds, especially Messrs. Sutton and Sons of Reading, who quote in their catalogue white, pink, pale mauve and dark blue, all of which I have grown with gratifying results. Meteor (red) is also a desirable variety.

Seed should be sown at once either in 8-inch pots in which they will bloom, or in those of a smaller size and be potted on as required. A good fibrous loam is necessary, with a little leaf-soil and sharp sand added. The pots must be well drained, and over the drainage should be placed a thin layer of turfy loam, sprinkling over this a little soot and bone-meal. After the seed has been sown, the pots should be placed in a cold frame and kept fairly near the glass. Directly germination has taken place, air must be admitted freely to encourage sturdy growth, while water should be given in moderation. As growth advances, some light, twiggy sticks will be needed, and about the middle of October the plants may be moved to the cool greenhouse. I pinch out the tops, as I find the secondary growth is stronger and, consequently, produces better flowers. Four or five plants will be sufficient for one pot. The plants may either be trained up a wall, around pillars, up the roof on wires, or grown in an upright position on the staging, the latter being an excellent method, as the flower-stems grow both long and straight, an important item when the sprays are needed for cutting purposes. When the receptacles are full of roots, the plants will require an ample supply of water, and an occasional dose of weak liquid manure will be most beneficial. A light sprinkling of Clay's Fertilizer or any special Sweet Pea manure is recommended at fortnightly intervals.

The greatest pest or disease the Sweet Pea grower has to contend with is mildew, and to a great extent this can be prevented. During the autumn and winter months it is not advisable to move the plants from one house to another more than is necessary, as the change, however slight it may be, often causes mildew to appear.

T. W. B.

VEGETABLE DRYING

By M. J. R. DUNSTAN, M.A., F.R.S.E.

(PRINCIPAL OF THE SOUTH EASTERN AGRICULTURAL COLLEGE, WYE.)

THE conservation of edible vegetables by drying is an industry which, on both the commercial and domestic scale, is carried on to a considerably greater extent on the Continent than in England.

This fact is due possibly to two reasons: Continental nations are greater consumers of vegetables in the form of vegetable soups; vegetables served as separate courses of a meal, not merely as adjuncts to, but as taking the place of, a meat diet. Again, the thrift of the Continental housewife and small market gardener is more highly developed than in England, and surplus vegetables are conserved for use when fresh vegetables are

be adopted in order to produce a satisfactory product, according to the kind of vegetable utilised.

The advantages of concentration and keeping quality are of obvious value, not only to the ordinary consumer, but to Expeditionary Forces by land or sea; and at the outbreak of war there was a shortage of supply of dried vegetables owing to the industry being in alien hands. It is not intended in this short article to enter into the manufacture of dried vegetables on the commercial scale; but a caveat must be uttered with regard to the rash establishment of any industry which depends for the supply of its raw material upon gluts or surplus supplies. A steady demand will produce a steady supply, and prices will adjust themselves; but hitherto the demand in this country has not been sufficiently steady at a remunerative price to enable the industry to be carried on on a commercial basis, except in one or two specialised instances.



AN EFFECTIVE GROUP OF ANCHUSA ITALICA DROPMORE VARIETY.

not obtainable. English restaurant frequenters are ignorant of the extensive use to which vegetables dried and supplied by Continental manufacturers are put in the preparation of the dishes they consume. Green or fresh vegetables contain some four-fifths of their weight of water, the remaining one-fifth being food material, more or less of which is digestible. The drying—either by hot air or *in vacuo*—of the fresh vegetables merely removes this water, so that the bulk and weight of the dried material is, roughly, from one-fifth to one-tenth that of the fresh, and when 1lb. of this dried vegetable is boiled with water it makes the same quantity of food material as if 10lb. of the fresh vegetable had been used. We get, then, concentration, and we also obtain a material which, when stored under dry conditions, will keep for a considerable time. Changes, chemical and other, may occur during the drying process whereby the colour, texture and flavour may be affected, so that special methods must

The advantage of drying over bottling as regards the product is the smaller space taken up, the greater ease in supplying varying quantities for consumption, and the abolition of "returned empties." The bottled vegetables are, as a rule, more expensive and have a more appetising appearance in the purchaser's eyes, but on the table, when cooked, it is difficult to discover any difference. The method of drying is simpler than that of bottling, but the original cost of the apparatus may be greater, though the running cost is not so great owing to the bottles, covers, &c., not being required, it being possible to store the dried vegetables in tins holding quantities up to 20lb., which, when cooked, will make 160lb. to 200lb. of edible vegetable. The hot-air system has so far proved more satisfactory than drying *in vacuo*, and is, of course, better adapted for domestic supply.

Fruits—Apples, Plums, &c.—can be dried by hot air, but it has not yet been found possible

to compete with the American Apple rings or the Continental Prunes. In the manufacture of Apple rings for sale a white appearance is essential, and to obtain this the fruit must be sulphured; while in the case of Prunes our English varieties are not suitable, as a Plum rich in sugar and of a less watery consistency than English Plums is required to make an article which is saleable.

One is often asked the question, Can we make such and such an article? and the answer is generally in the affirmative; but for the establishment of a satisfactory industry manufacture without sale is a hopeless undertaking, and in drying fruit or vegetables one must put an article on the market which for price and quality is equal or superior to that with which the consuming public is already supplied.

It does not pay to set up an expensive plant to deal with a surplus, such plant to lie idle in years when there is no glut. If we can use existing drying apparatuses (e.g., as for Hops) in the out season and can turn out a saleable product, all is well. For domestic drying, any



THE SECOND BLOOMING OF DELPHINIUM QUEEN MARY.

method of drying will do which secures the following conditions: (1) Free circulation of hot air over the material to be dried. (2) The maintenance for some six to seven hours of a level temperature.

Potatoes, Onions, Carrots, Turnips, Green Peas, French Beans, Cabbage, &c., can all be dried successfully, and their use in julienne and other vegetable soups, in stews and hashes is very serviceable; but served as separate vegetables they are not as appetising in appearance or taste as the fresh vegetables.

All the above-named vegetables (except Green Peas) must be cut into slices or shredded before drying, so as to expose the greatest surface to the hot air. It is best also to steam or plunge them into boiling water before drying, and in the case of Potatoes special care is needed to prevent discoloration, the Potatoes after washing and paring being immediately plunged into cold water, then steamed and then dried. Green Peas are best soaked in a 10 per cent. solution of carbonate of soda; this preserves the colour and prevents toughening.

DELPHINIUM QUEEN MARY

VISITORS to the Holland House Show will recall the fine display of this new variety made by the raisers, Messrs. Bunyard. Our illustration shows its value as an autumnal flower, from 150 plants no less than 2,075 spikes of bloom were counted, the whole mass making a perfect wave of sky-blue. The photograph was taken on August 10, and we are informed that all the plants had made large spikes in the summer. The Belladonna ancestry is shown in this free second blooming, and the value of D. Queen Mary in the herbaceous border is obvious.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

Peaches and Nectarines.—The fruits should have now been gathered from the trees of the early varieties, and it is advisable to remove all useless shoots. Retain growth of moderate dimensions and that which is firm and not too gross. Trees that are producing a quantity of

watering with liquid manure a few days in advance.

The Flower Garden.

Calceolarias.—Cuttings of the bedding Calceolarias should be inserted in cold frames directly they are available. When rooted they must be given an abundance of air to prevent damping.

Pentstemons.—These are largely grown, and now the principal batch of cuttings must be secured. They may be treated similarly to Calceolarias, and when they have rooted and began to grow, the tops may be pinched out. This will induce a bushy habit, and the number of flowering growths will be increased accordingly.

Violets are making headway, and all weeds and runners or side shoots must be removed. A light dusting of soot may be given, which not only keeps red spider in check, but promotes healthy growth and strong crowns.

General Work.—Continue to propagate Fuchsias, Pelargoniums, Violas, Pansies and other subjects used for bedding purposes. Many shrubs can be increased by cuttings, such as Viburnum, Spiraea, Veronica, Escallonia, Ceanothus and Cistus. A cold frame partially shaded from the midday sun will suffice until the cuttings have rooted.

Fruit Under Glass.

Muscat Vines.—As the nights become cooler and the days moister, it will be necessary to keep the atmosphere of the house somewhat drier, and a little heat should circulate through the pipes at night. Prevent any sudden fluctuations of temperature and ventilate carefully. Where the foliage is excessively thick, a portion may be removed, tying back lateral growth. If the border is inclined to be dry, give a liberal quantity of water. Maintain a temperature of 70° at night, with a rise of 10° or so during the day.

Plants Under Glass.

Chrysanthemums.—The buds on the large-flowered kinds are now rapidly developing, and if a lot of wet weather is experienced, it will be advisable to place the plants under glass. Ample ventilation must be provided, and the house kept as cool as possible. The bush varieties may be left in the open for a few more weeks.

Tuberous-Rooted Plants.—These embrace Gloxinias, Begonias, Achimenes and Gesneras, many of which have completed their season's growth. When the foliage begins to change colour, water must be reduced gradually, and the plants given a position where they will secure the full benefit of the sun's rays. While at rest they may be placed in the vinery or any similar structure where it is cool and the atmosphere tolerably dry.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castletford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Flower Garden.

Climbing Plants.—The strong young growths should be liberally thinned, and those left must be fastened to their supports in order that they may escape damage from wind. Climbing Roses on walls are still liable to attacks from red spider, and as a prevention regular syringings with clear water should be practised; but should this pest get established, an insecticide must be used. Climbers growing against a wall frequently get very dry at the roots, so that liberal waterings are necessary to keep them in good health. A mulching of manure is also beneficial.

Sweet Peas.—These are now becoming exhausted, and unless a late batch has been sown to furnish fresh blooms at this season, those that have flowered all the summer will not keep up the supply of cut flowers. They may, however, be induced to make fresh growth and flowers if the plants are trimmed back with the hedge shears and given a good soaking of liquid manure at the roots.

Fruit Under Glass.

Late Grapes.—The colouring of these has been rapid with the recent hot weather, and during the latter half of July and the beginning of August fire-heat was almost dispensed with. As the nights are now beginning to get colder, enough

coarse growth and only carrying a small crop ought not to be given stimulants of any description.

Fruit Trees.—All fruit trees must be watched to prevent them becoming dry at the roots, or next season's crop will be reduced. Trees near walls and those planted last autumn will be most likely to suffer from drought.

The Kitchen Garden.

Cauliflowers.—Where a supply of Broccoli and Cauliflowers has to be maintained throughout the year, it will be advisable to sow seeds of the latter at once. Select either Early London or Magnum Bonum, and sow the seeds in the open ground. When the seedlings are large enough, transfer them to a cold frame, where they may remain till the spring. Planted out early in April, they will follow Broccoli Late Queen.

Winter Spinach.—Seed that was sown a few weeks ago is well through the soil, and the plants must be thinned to 6 inches apart directly they are large enough to handle. Keep the bed free from weeds, and an occasional dusting of lime or soot between the rows will keep slugs in check. Moreover, the soot will be beneficial to the crop. Another sowing may be made if thought necessary.

Leeks.—If these are grown in trenches, it is time they were earthed up. Remove all weeds and dead foliage, and give the roots a good

fire-heat should be given to avoid moisture settling on the Grapes; but the pipes must not be allowed to become too hot, or shrivelling of the berries will result. Do not neglect to give water at the roots even after the berries are colouring, especially on well-drained borders.

Peaches.—Trees that have finished fruiting should not be allowed to suffer from want of water. If the borders are porous, liberal supplies should be given until the leaves are being shed. If growth has been too luxuriant, some root pruning should be done, and the present is a suitable time to examine the roots of trees not quite satisfactory. This is best done by lifting and transplanting the tree and laying out the roots near the surface, removing any large root with a downward tendency. This should be done when growth is completed, but before the leaves begin to fall. Do not allow the fibres to become dry. If there is any danger of that, it is better to lift one side first and protect the roots with a damp mat while lifting the remainder. In replanting, it may be necessary to add some old mortar rubble to the soil, which will check gross growth in the future. Keep the foliage from flagging by syringing it morning and evening for a time. Young trees planted in a rich compost are always liable to make rank growth to begin with, but if transplanted two or three times at intervals of two years they will generally settle down into fruitful trees with medium growths.

Melons.—The late crops are now swelling and should be supported with nets. As more fire-heat will now be required, a careful watch should be kept that the plants do not suffer from want of water at the roots. These will have penetrated to the bottom of the beds, where, with the extra heat in the pipes, the soil soon dries up. Swelling fruits will be much benefited if a little sulphate of ammonia is added to the water. Much surface moisture must be avoided, or damping at the ground level will result.

Plants Under Glass.

The Stove.—The temperature of the stove should now be allowed to fall considerably, giving more ventilation so that the plants may become hardier and able to stand the winter better, and be suitable for removal for house decoration. Table plants of Crotons and Dracenas should now be given more light, the former being fully exposed to the sun so that the foliage becomes well coloured. Do not neglect to syringe them regularly to keep down red spider, to which they readily succumb. Dracenas do not require so much sunlight; indeed, their colouring is much finer when continuously shaded from strong sunshine. A batch of Croton cuttings may be put in now. Select well-matured points and see that thrip and spider are absent, or all the leaves will drop before the cuttings are rooted. A close propagating-frame, where a bottom-heat of about 80° can be maintained, is essential. Use a light sandy compost and small pots, placing one cutting in each pot. Dracenas that have become leggy may be used for propagating. Cut up the stems and thick rootstocks into pieces about an inch long, insert them in pans of sandy soil, and place them in the propagating-frame.

Caladiums.—These should now be removed to some out-of-the-way corner, as growth has finished and their fine colouring gone for a season. They should not be dried off too suddenly nor yet placed in cold quarters to rest. The variety *Argyrites* should be kept slightly moist throughout the resting period.

Coleus.—Cuttings of this useful decorative plant should now be taken, as the old plants will soon begin to fade. Place these singly in small pots in a light sandy soil, but do not put them in the propagating-frame unless it can be kept comparatively cool and airy. They root freely in a Melon or Cucumber house, the temperature and partial shade afforded there being sufficient.

Winter-Flowering Geraniums.—These should now be allowed to develop their flower-buds, as it will soon be necessary to remove them to the greenhouse. A batch of cuttings may also be put in to furnish flowering plants for next summer.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

A GIANT GROUNDSEL (W. L. F.).—The plant sent for naming is *Senecio Clivorum*, a comparatively recent introduction from China. It should be given a place in the pleasure grounds or by the waterside where it has plenty of room for development. It may be propagated by division of the crowns or rootstock in late October or in March.

BORDER FLOWERS (Viola).—*Campanula muralis* is a good plant, hardy, free flowering, and easily grown. We should recommend you to purchase plants, which are quite cheap. For the narrow part of the border, to give flower in July and August, the pink-flowered *Phlox Elizabeth Campbell* would be one of the most suitable subjects—three, six or a dozen of it in a group as space permits. If the crimson Roses are near or in actual touch, the *Madonna Lily* generously grouped would make a fine contrast, and may be put behind the *Phlox*. In front of the latter, groupings of *Antirrhinum* (*Snapdragon*) in pure white, pink or crimson would give a flowering of long duration at small cost. These are available in tall (3 feet), medium (18 inches) and dwarf (8 inches) sorts, and the colours are to be had separately. If seeds are sown now in a little plot apart and the seedlings pricked out a little later, sturdy plants for putting out in March next would result. We should prefer this arrangement to any addition of *Roses* or *Weigela* in that part; the latter, indeed, would be unsuitable. It is late now to sow *Canterbury Bells*, but you would doubtless get plants in any colour from Messrs. H. J. Jones, Limited, Lewisham, S.E.; from Messrs. Godfrey, Exmouth; or Messrs. Dobbie, Mark's Tey. The objection to seedling *Delphiniums*, if taken haphazard, is the mixture and inferiority, often enough, of the strain. Nor is one ever sure of their height. You may get 3-feet-high and 6-feet-high plants side by side. Seedlings of such are best first flowered apart and then selected to colour, &c. *Violas Florizel* (lilac) and *Primrose Dame* would suit well, and put out in October would make fine plants. *J. B. Riding* (reddish) and *Maggie Mott* (mauve) are excellent bedding *Violas*. These would be better for summer display than *Aubrietia*. One line should suffice if autumn planted, and this pruned back in early summer to near the ground would give a later display. The dwarf *Marigolds* *Legion of Honour* and *signatus* *pumila* are probably those to which you refer. These may be raised from seeds sown in March. If you adopt *Violas* as an edging, you would not need to sow seeds. Such an edging properly treated would last two or three years. Sow *Nemophila* or some good annual (*Mignonette*) over the *Anemone*; the *Viola* would not do. You would do no good with *Pelargoniums* (so-called *Geraniums*) in an unheated conservatory during winter, and severe frost would kill them outright. To do them well they require a temperature of 40° or 45°, and to be attended by some skill. The plants for this purpose are rooted in early spring, grown on under glass till May, pinched twice in the early stages to make them bushy, potted very firmly into 4-inch pots in early June, and given a final stopping late in August prior to housing. During the growing period all flowering must be suppressed, all energies being directed to plant formation. After housing in September, flower-trusses may be allowed to form.

ROSE GARDEN.

CLIMBING LA FRANCE REQUIRING PRUNING (Burton).—We should advise you to cut out one or two of the oldest growths at once, then spread out the remainder as much as possible in order to ensure ripening of the wood. Early in October pinch out the points of the young growths.

CROWN GALL ON ROSE (G. D. C.).—The curious growth on the Rose root is a crown gall, due to the attack of *Bacterium tumefaciens*. It is very doubtful whether this is the cause of the death of the Roses, especially as you find nothing of it on others which are not growing well. You will probably find something in the soil or in the situation, such as a draught, exposure to salt winds, or something of that kind, to account for the death of the plants.

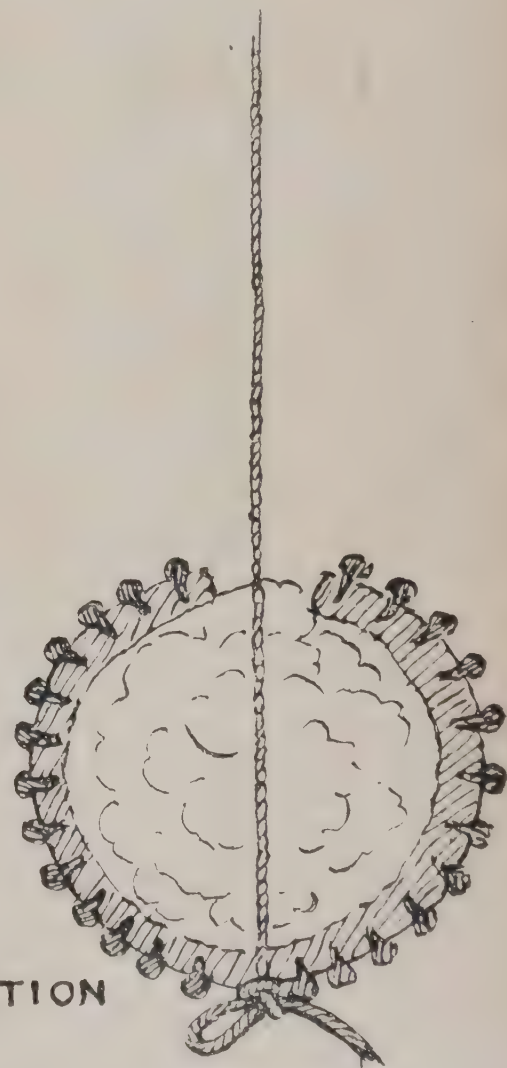
ROSE FOLIAGE DAMAGED BY INSECTS (L. D.).—We should say the damage has been caused by one of the weevils. Probably if you look at night you will see the insects at work. Place a white cloth beneath the tree and give a good shake, when the insects will fall below and may be caught. If you can send us some of the grubs we could give you fuller information, as the Rose has so many enemies.

VARIOUS QUERIES ABOUT ROSES (Maida Vale).—The variety *Duke of Connaught*, like many of the Hybrid Perpetuals, is very prone to mildew at this season of the year. Give the plant a good spraying with *Abol* or some other good fungicide. Basic slag may be used for a light soil with every advantage; it is best applied in October. We are pleased to read your commendation of *Gustav Grunerwald*. It is indeed a fine Rose, especially for town gardens.

ROSES TO GROW OVER TREE STUMP (E. M. K.).—You can make your old *Sumach* stump look quite pretty by planting against it free-growing *Roses*. As you desire free and perpetual bloomers, we would recommend *Lady Waterlow* for one and *Florence H. Veitch* for the other. You should have two large holes opened out as soon as you can next month. As the soil is gravelly, perhaps you could replace the gravel with some of the top soil from another part of the garden. Let the holes be about 3 feet wide and the same in depth. Mix with the soil for each hole a small bagful of *Wakeley's Hop Manure*, but see that the manure does not come in contact with the roots of the *Roses*. Fill the holes as soon as the soil has been thrown out, and allow them to remain as they are for a week or two; then plant the *Roses*, say, at the end of October. You need not prune much the first year. During next summer afford each Rose a bucketful of water twice a week.

MISCELLANEOUS.

POT-POURRI: TO DRY ORANGES STUCK WITH CLOVES.—Which is the best way to dry whole Oranges, stuck with Cloves, for use in pot-pourri? I am anxious to ascertain, on behalf of a friend, how Oranges are dried



whole, and cannot find the way mentioned in any recipe book.—RECIPES. [The most satisfactory way is to cut a small hole in the stalk end of the Orange: then a thin-bladed knife, or, better still, a flattish carving gouge is worked about inside, taking care not to go through the rind, till the whole of the core and the greater part of the juicy flesh is loose and can be drawn out through the opening. It is not essential that the whole of the flesh should come away, as any that remains next the inner side of the rind would soon dry up. The hollow is then filled with cotton-wool, packed tight enough to resist pressure in sticking in the Cloves. A strong thread is then threaded on a long needle, knotted at the end, and passed through the Orange so that it can be hung up in a warm, dry place. The Cloves should not be stuck too close, as the whole thing contracts in drying. It is possible to dry the Oranges in the same way without

removing the inside, but they shrivel up smaller, and some may rot. Oranges prepared whole are more usually kept intact as sweet pomanders; if they are to be broken up to mix with pot-pourri there is no advantage in doing them whole over the much easier, and in all ways better, plan of cutting the peel into thick strips, sticking these fairly full of cloves, and bedding them in the usual salt mixture till the whole is put together. Done like this they hardly shrink at all. In any case, the fruit must be the Seville Orange.—Ed.]

GRUBS TO NAME (H. S.).—The grubs sent are those of the cockchafer, *Melolontha vulgaris*, a pest which feeds on the roots of a variety of plants. They are not usually troublesome in gardens, except where permanent plantations exist.

SOIL ANALYSIS (Miss B.).—Dr. Voelcker of 1, Tudor Street, New Bridge Street, London, E.C., would undertake the analysis of your soil, and, if you are a Fellow of the Royal Horticultural Society, at a reduced fee.

ASPARAGUS KALE (Kail).—It is now too late to sow this Kale for use next spring. It should have been sown at the end of April. If you cannot procure plants locally, advertise with us, and no doubt you will succeed. No time should now be lost in planting.

BOTTLING PEACHES AND NECTARINES (E. R.).—Peaches and Nectarines bottle quite successfully. The first named are inclined to go somewhat soft unless done just as they commence to ripen. Medium-sized fruits should be selected and halved, and the stones removed. Nectarines also make one of the most delicious of jams. They should be preserved before becoming quite ripe. The skins should be removed, the stones taken out and broken, and the kernels included and boiled with the jam.

DRYING PEAS (J. H. and Others).—If the Peas are spread out in the sun until thoroughly dry, they will keep for a considerable time, but they are liable to shrivel and become very tough. The best method is to dry them by means of hot air, after having soaked them in a weak solution of potassium carbonate. The apparatus for this drying costs about £10, and if you think it worth your while, we can give you particulars as to where to get one.

PLUM FOLIAGE FOR INSPECTION (Mrs. D. H. S. S.).—The appearance of the foliage of Plums, &c., sent suggests a deficiency of iron, and we recommend you to dress the soil with iron sulphate at the rate of about 3oz. to the square yard. The mere replanting of your Roses without renovation of the soil is not likely to be productive of good results, and we think it would be well to see that the soil is thoroughly improved in any attempt to produce good crops of Roses.

RULES FOR JUDGING (Begonia).—"Rules for Judging and Suggestions for Schedule Makers," by the Royal Horticultural Society, will, we think, help our correspondent in the work he has to do. It gives the point value of every vegetable and fruit, and a host of other valuable information bearing upon the duties of judging, also information for exhibitors. Write to the Secretary, Royal Horticultural Hall, Westminster, London, S.W. The price is 1s. 6d., post free.

PEARL-WORT ON LAWN (A. M. C.).—Pearl-wort is a very difficult weed to eradicate once it becomes well established in a lawn. The best plan is to take the patches out bodily when possible and replace with clean turf, but if that cannot be done, obtain lawn sand from any reliable seedsman and sow it on the patches, following the instructions sent out with the preparation. Common salt can also be used, but it is quite likely that it would make the patches look so bad that it would be necessary to lift them and relay with new turf; or, at any rate, grass seed would probably need to be sown on the patches.

APPLE TREES NOT DOING WELL (T. F.).—The appearance of the leaves, although they seem to have been attacked by a capsid bug, does not enable us to say to what the cause of the lack of growth in the bush Apples in question is to be attributed, for that attack, though it may be contributory to it, is not sufficient to have caused it. The cause may be exposure to cold draughts, lack of nutriment in the soil (in which case a top-dressing of decayed farmyard manure might prove useful), improper pruning (for all Apples do not require the same treatment in that respect), grass about the roots, and so on.

VARIOUS QUESTIONS (E. W.).—(1) The Rose leaves are attacked by the common Rose mildew, and should be sprayed with potassium sulphide at the rate of an ounce to three gallons of water. (2) It is natural that the later flowers of the Delphiniums should be getting smaller as the season passes, and as you are obliged to put up with the services of partly trained people, it would be well, perhaps, to avoid the remaking of your border this season and resort to top-dressing with manure, to be forked in later. (3) The Pea seed may have been poor and rather old, as supplies of seed have not been quite easy to get, but only two or three out of some hundreds we have seen have been poor. Did the seed germinate badly? The best Peas may appear shrivelled to a novice, for wrinkled Peas are the sweetest of "marrowfats." If germination was satisfactory, the failure is probably attributable to errors in cultivation. (4) Apple and Pear crops are generally bad in Surrey this season. Lateral but not terminal growths should be cut back now to about three buds from the base of the shoot.

NAMES OF PLANTS.—A. M. D.—Rose Mme. Ravary.—*Marlow*.—Kaiserin Augusta Victoria.—*D. P. S.*—We believe the Rose is King George V.—*M. B. L.*—The Farquhar Rose.—*H. P. B.*—A form of *Stapelia maculosa*.—*Torquay*.—Black Horehound (*Ballota nigra*).—*Dr. P.*—*Lonicera japonica* Halleana.—*T. C. C.*—

1, *Hypericum patulum*; 2, *Ruellia Portellæ*.—*D. Mc.*—1, *Myrtus communis* (Myrtle); 2, *Escallonia langleyensis*; 3, *Genista tinctoria*; 4, *Hypericum pyramidatum*; 5, *Physostegia virginiana*.

SOCIETIES

ROYAL HORTICULTURAL SOCIETY.

THE fortnightly meeting held on the 29th ult. was distinctly interesting and good, albeit below the standard of those to which in normal times we are accustomed. Hardy flowers were particularly good and well shown. Fruit from Welwyn and Langley was of exceptional merit, the former of a somewhat comprehensive nature. Orchids were not numerous shown, but included many choice specimens and not a few novelties.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. Sydney Morris, J. Green, W. J. Bean, G. Harrow, G. Reuthe, J. W. Moorman, T. Stevenson, J. Heal, J. F. McLeod, W. H. Page, A. Turner, C. Dixon, H. J. Jones, C. E. Pearson, H. Cowley, W. P. Thomson, E. H. Jenkins, W. G. Baker and J. Hudson.

Mr. James Box, Lindfield, Sussex, displayed a large comprehensive exhibit of hardy plants, filling a low-placed double table with Phloxes, Montbretias, Lilies, Gladioli and other things. A notable item in the group was the too rarely seen *Campanula primulaefolia*, a very distinct species 2 feet or more high, worthy of extended cultivation. *Antholyza paniculata* was very effective in crimson scarlet, and not less so the two handsome blue-flowered *Aconitums* Wilsoni and Fischeri, that last named of very rich colour. These are both worthy border flowers at this time. *Anemone* Lord Ardilaun is a very pure white, certainly one of the best of its class. *Polygonum amplexicaule* (fine red), *Gentiana asclepiadea*, *Stokesia cyanea* alba and *Montbretia californica* (self yellow) were also good. The single yellow *Rudbeckia Herbstone* is a plant of conspicuous merit, very telling in colour and refinement. Herbaceous Lobelias were also good. This superb group worthily represented the best hardy flowers now in season.

Mr. G. W. Miller, Clarkson Nurseries, Wisbech, also showed strongly of hardy plants, the series of Montbretias being particularly good. Of these, Star of the East (the largest yet raised), Prometheus (the richest orange colour), Westwick, King Edmund (yellow) and Lord Nelson are a set of the best. Hereward is also a refined and beautiful variety of pale orange colour. Phlox White King (very handsome truss), *Lilium sulphureum* (a grand trumpet Lily), *Kniphofia rubra* (of rich colour) and *Rudbeckia Herbstone* were among other good things.

Messrs. J. Cheal and Sons, Crawley, contributed Dahlias in Collarette, Cactus, Star and single varieties. Of Cactus, Snowdon, John Riding and Victory were among the best. Edith Carter, gold base with scarlet tips, was very distinct and good. Aphrodite (pure white, Peony-flowered) and Delice (pink, of the decorative set) were very finely presented. Crawley Star, White Star and Northern Star were also very fine. There were some excellent singles, Leon (rich scarlet, of small size) being very pronounced.

Mr. J. C. Allgrove, Middle Green, Langley, had an excellent exhibit of *Thalictrum dipterocarpum*, whose violet flowers on 6-feet-long sprays provides a very pleasing effect. With it was associated the double white form of *Gypsophila paniculata*, the two making a pretty contrast.

In an interesting lot of plants from Mr. G. Reuthe, Keston, Kent, we noted *Saxifraga mandschurica* with pinky white trusses, *Eucryphia pinnatifida*, *Hypericum Moserianum* (fine yellow), *Dianthus cærulea* (a remarkable plant from Japan with drooping blue flowers and white anthers), *Calluna Astilbe simplicifolia*, *Cornus canadensis* (white), *Ardisia japonica* (white flowers, succeeded by orange-coloured berries), *Bockia affinis* (with dainty Spiræa-like flowers) and *Gaultheria nummularifolia* (a pretty rock plant of trailing habit). Hardy Heaths included *C. vulgaris flore-pleno*, *C. v. pilosa flore-pleno* and *C. vulgaris Foxii* (very dwarf). There was quite a charming lot of alpines, those in flower being chiefly Campanulas. *Polygonum amplexicaule atropurpureum* was very fine and of pronounced colouring.

Mr. W. Wells, jun., Merstham, showed some excellent Delphiniums, of which *Belladonna plena*, Mrs. H. Kaye, Merstham Glory (pale blue), Emily (deep blue and white eye) and La France (bluish mauve, a most reliable variety) were the best. Phlox Aubrey Alder, a most brilliantly flowered novelty, was also on view. Aster Amellus King George is the handsomest of all the Italian Star-worts, large, and of good colour.

Messrs. Stuart Low and Co., Bush Hill Park, Enfield, showed some excellent Gloxinias in crimson, purplish, and scarlet and white shades. They were of exceptional merit.

Messrs. H. Chapman, Limited, Rye, showed a series of Cyclamen neapolitanum together with its white variety. Hardy Fuchsias constituted a small group from Messrs. Bunyard, Maidstone, F. pumila Tom Thumb, making a pretty bush a few inches high, being distinctly ornamental. F. Thompsonii has a graceful habit.

Roses Danæ, Moonlight, Clarissa, Queen Alexandra (single white, flushed rose, with golden stamens) and Callisto (semi-double, primrose coloured) were presented by the Rev. J. H. Pemberton, Havering-atte-Bower, near Romford. They were very charming.

Messrs. H. B. May, Limited, Edmonton, showed Ferns excellently. *Polypodium glaucum crispum*, *Todea Vroomii*, *Adiantum Veitchii*, *Nephrolepis gracillima*, *Pteris tremula Smithii* (highly ornamental and decorative

and *Asplenium marginatum* (a most distinct species of yellow green tint) were among the good things shown. Shrubby Veronicas La Perle (red), Lavinia (intense violet) and Favourite (purplish violet) were also noteworthy.

FRUIT AND VEGETABLE COMMITTEE.

Present: J. Cheal, Esq. (chairman), and Messrs. Owen Thomas, E. A. Bunyard, W. Bates, H. Markham, E. Beckett, A. Bullock, A. W. Metcalfe, A. R. Allan and A. Grubb.

A collection of fruits of a most embracing character came from C. A. Cain, Esq., J.P., Welwyn, Herts (gardener, Mr. T. Pateman). Grapes, Cherries, Melons, Peaches, Pears, Apricots, Apples and other fruits were shown. Of Grapes, Gros Maroc, Appley Towers, Muscat Hamburg, Muscat of Alexandria, Lady Hutt, Lady Downe's Seedling and Black Hamburg were among those shown. Of Plums, we noted Black Imperial, The Czar, Transparent Gage, Cox's Emperor, Old Green Gage, Jefferson and Kirke's Blue. Nectarine Pineapple, Apricot Hemskirk, and Peaches Royal George and Violette Hâtive were all excellent. There were upwards of sixty dishes shown, Currants and Cherries, in addition to those mentioned, being also good. A gold medal was deservedly awarded.

Mr. J. C. Allgrove, Middle Green, Langley, showed young fruiting trees of Apple Rev. W. Wilks, three year old specimens carrying as many as nine or ten fruits of large size. Apples Red Victoria, Lord Suffield, Stirling Castle, James Grieve, Lady Sudeley and Worcester Pearmain, with Plums Belle de Louvain (very dark), The Czar, Gisborne's and Diamond, were well shown. A highly attractive exhibit. Silver Knightian medal.

One hundred and five dishes of Tomatoes, representative of the 1916 trial of these fruits at Wisley, were sent from the Society's Gardens, green and ripe fruits of most of the varieties being staged on the same dish. They were a most interesting lot.

ORCHID COMMITTEE.

Present: Sir Harry J. Veitch, V.M.H. (chairman), Sir Jeremiah Colman, Bart., and Messrs. J. O'Brien, C. J. Lucas, R. Thwaites, Pantia Ralli, T. Armstrong, Walter Cobb, J. Charlesworth, A. Dye, S. W. Flory, W. Bolton, E. A. Rolfe and Gurney Wilson.

Messrs. Armstrong and Brown, Tunbridge Wells, showed a small group of novelties. Most pleasing of them all was *Lælio-Cattleya* Golden Wren, yellow sepals and crimson purple and yellow lip. *Sophro-Cattleya* Blackii (large and brilliant), *Odontioda Aspasia* (of mauve tone), O. Bradshawæ (orange coloured) and O. Vuylstekeæ were very good. *Cattleya Iris Majestic* and C. Lord Rothschild were very fine. C. Clæsiæ alba is a very pure white.

Messrs. Sander and Sons, St. Albans, showed *Cattleya* Lady Veitch var. superba, a lovely pure white variety, and, among others, *Lælio-Cattleya* Purple Emperor, Vanda Sanderiana, *Lælio-Cattleya* Queen Marie and Brasso-Cattleya Mme. Charles Maron, a delightful variety in palest mauve with canary yellow throat. *Cattleya guttata* var. Sanderæ, green and yellow sepals and white lip, was also on view.

Messrs. Charlesworth and Co., Hayward's Heath, showed *Lælio-Cattleya* Thynne, of yellow colour; *Cattleya* Lord Rothschild, white sepals and yellow veined and purple lip; and *Lælio-Cattleya* Appam, in which the flowers had cinnabar red sepals and ruby crimson lip.

In a small set from Mr. C. F. Waters, Balcombe, *Cattleya* Lord Rothschild alba was the most distinct plant.

Messrs. Stuart Low and Co., Enfield, showed a series of *Cattleyas* and *Lælio-Cattleyas*.

Messrs. Hassall and Co., Southgate, N., showed well *Cattleya* Sybil and C. Adula in variety, the range of colour in the former varying from golden to fawn and buff. All are very beautiful and attractive at this time.

SWEET PEAS IN THE NORTH OF SCOTLAND.

WITH commendable zeal the members of the Elgin and District Horticultural Society held an exhibition of Sweet Peas and Roses on August 16. The society, which is affiliated to the National Sweet Pea Society, has only been in existence four years, but has done much for horticulture in Morayshire. It has an enthusiast as secretary in the person of Mr. T. L. Mann, and he has been backed up by a strong and energetic committee. The proceeds were devoted to the laudable object of providing comforts for the 6th Battalion Seaforth Highlanders and also for local prisoners of war. The show was most successful and there was a very large entry. Among the competitors was Mr. J. A. Grigor, gardener to Mrs. Dunbar-Dunbar of Seapark, Forres. Mr. Grigor's skill as a grower is well known. For some years he has competed at all the leading shows in Scotland and also in London, and has been most successful. He is one of the leading growers in the country. At Elgin he had a large quantity of blooms, and had a double entry in each section of the open class. He scored in all save the single vase for lavender, when he was beaten by the Rev. E. V. Kissack, The Orphanage, Aberlour, who obtained a notable success with a well-balanced vase of Florence Nightingale. This was the first time this amateur had competed in the open class, and he was well rewarded. It would be difficult to say which was the best in Mr. Grigor's large collection, but he had very fine exhibits of King Alfred, King Mauve, Prince Edward of Wales, Hercules, and if the palm was to be awarded to any, it would be to two magnificent vases, viz., those of President and Edward Cowdy. Mr. Grigor's Sweet Peas were characterised by good substance and great refinement, and were worthy of his reputation. The proceeds reached the sum of £65.

THE GARDEN.

No. 2338.—VOL. LXXX.

SEPTEMBER 9, 1916.

NOTES OF THE WEEK

THE sum of about £800 was obtained recently at a garden fête held at Castle-milk, Lockerbie, on behalf of the War Horticultural Relief Fund. The fête was organised by Lady Buchanan Jardine, who is in charge of the movement in Dumfriesshire, and was successful in every way. The beautiful gardens, so well managed by Mr. John Jeffrey, Sir Robert W. Buchanan Jardine's gardener, were much admired.

Wages at Kew.—Owing to the wage problem in the Royal Gardens, Kew, it was recently resolved that the lady gardeners, gardeners, keepers and labourers should come out on strike from Monday last. We are pleased to learn that a war bonus of 4s. per week to those employes receiving less than £2 per week has saved the situation.

Lathyrus latifolius in Mr. Mawley's Garden.—Although a very common plant in gardens, this climbing perennial Pea and its improved varieties are among the most delightful flowers from July till September. In the accompanying illustration a white form is shown flowering over an old sundial. The photograph was taken in the garden of Mr. Edward Mawley, the beloved President of the National Rose Society, Rosebank, Berkhamsted. Meteorological instruments may be seen in the background of the illustration. In addition to being a Rose grower of wide repute, Mr. Mawley has the best private meteorological station in the country.



A WHITE EVERLASTING PEA GROWING OVER AN OLD SUNDIAL.

Garden Ornaments and War.

The two materials which history and the fitness of things tell us are the most appropriate for the inanimate ornamentation of British gardens are lead and stone. Cisterns made of the former of these are referred to by Worlidge in his "Systema Horticulturæ" in the latter half of the seventeenth century; but it is probable that the halcyon years of the lead industry were those between 1700 and 1750. When our daily papers are so full of accounts of the shortage of copper in Germany and the desperate means which the Government of that country is taking to obtain the same from its civilian population by persuasion

and compulsion, it is of considerable interest to remember that the American War of Independence depleted our gardens of many of these old lead figures, when as "works of art" they were sent across the Atlantic in order to make bullets for the fighters.

Gentiana Kurroo.—It is interesting to note that this Gentiana, the subject of recent notes in THE GARDEN, first flowered in the nursery of the late Mr. William Bull of Chelsea. After flowering it was distributed as a new plant by Mr. Bull in the autumn of 1879, the price charged

Among other new plants announced in the same list as the Gentiana was Selaginella Kraussiana aurea, the price of both being the same. At the present day the Selaginella is not much appreciated, whereas the Gentiana is still rare.

Sending Plants to British Hospitals in France.—The Board of Agriculture and Fisheries have been informed by the Foreign Office that the French Government have kindly consented to authorise until further notice the entry into France of all plants forwarded from England to

British hospitals and cemeteries in France although not accompanied by the certificates required under the Phylloxera Convention. When consignments of plants are being sent to France for other purposes, consignors should be careful to make the necessary arrangements to procure the required certificates.

A New Codonopsis (C. Beesiana).—There is at present flowering in the extensive rock garden at Wisley a new and rare species under the name of Codonopsis Beesiana, for the introduction of which we are indebted to Messrs. Bees, Limited. It is no doubt a native of Central or Eastern Asia, and differs in many ways from the sky blue C. ovata; in fact, it is difficult to realise from a horticultural point of view that these two species belong to the same genus. The flowers are large, borne singly on more or less decumbent stems, and resemble in form and colour the well-known Fritillaria Meleagris. In form the flowers are bell-shaped, five-parted, and of a purplish hue, chequered with deeper-coloured veins both on the outside and inside of the blooms. At first there is a

ground colour of pale yellow, but as the flowers age this colour is displaced by purplish tints. The first blooms make their appearance about the middle of July, and a constant succession is kept up throughout August and September. At Wisley it is given a somewhat moist, sheltered quarter with a northern aspect, in which position it proves to be quite hardy.

*** Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.

being 7s. 6d. each. The plants which flowered at Chelsea were raised from seeds sent as Gentiana species. The seed germinated readily, and, planted out in a frame containing a mixture of loam, peat and sand well incorporated together, they grew away freely, and a large number of flowers were produced. There was no difficulty attending their culture, but whether they would have become permanently established in London was not put to the test, as the stock was soon sold out. A coloured plate of this Gentiana appeared in THE GARDEN for March 20, 1880.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Rose Joanna Bridge (H.T.).—This new decorative Rose was sent out by Mr. E. J. Hicks in the spring of 1916, and should rank as one of the most useful varieties we have for cutting. In growth it is all that could be desired, and flowers abundantly on stiff stems with glossy foliage. The blooms are semi-double, with broad, rounded petals. The colour is straw yellow, with strawberry shadings, deep when unfolding, changing with age to the most delicate tints of blush pink.—E. M.

Roses in a Scottish Garden.—In the correspondence columns of your issue of August 19 Rose Blush Rambler is said to nicely furnish an 8-foot or 9-foot pillar. In my garden here, Blush Ramblers, which were planted in the spring of 1914 on each side of a gate in the garden wall

by courtesy a garden, with the result that the next year the pretty, bright-coloured flowers cropped up all over the place. As might be expected, the adverse conditions—including cats, the bane of the London gardener—were too much for this little South African bulb, and many of them perished. However, four years afterwards, when I left the neighbourhood, they had not quite all died out.—H. P.

Escallonia philippiana.—Mr. Blair in a recent issue refers to this as "usually considered somewhat tender." It is, I believe, one of the hardiest, if not the hardiest of the Escallonias, and I have seen it doing well in places where *E. macrantha* and *E. exoniensis*, another fairly hardy one, are too tender for ordinary positions as a bush.—S. ARNOTT.

Mother Nature and Father Florist.—Some stray meditations on a mixed bouquet of wild and garden flowers. From garden, from orchard grass and from hedge, someone had gathered and arranged a mixed bouquet for me, and as

Wild Flowers in the Garden.—I was particularly pleased to see in *THE GARDEN*, issue August 26, page 420, an appreciation of the Musk Mallow and *Hypericum perforatum*. These have been a show in my garden for some years, and I would like to put in a word for the common white *Lychnis (vespertina)*. It makes, under decent treatment, a bush 4 feet high, and its white blossoms may be counted by hundreds all the summer. The purple Orchis also, in moist peaty loam and a shady situation, is a glorious sight here in June. When extracting them from their native haunts, push the trowel deep and see that the tubers are uninjured. I have in the greenhouse a few plants with sweet-smelling foliage when rubbed—Lemon-scented Verbena, *Diosma ericoides* and various Geraniums. Will someone kindly tell me the names of other plants possessing this character? I am anxious to get together a collection of such things.—J. H. HAWTHORN, *Leicester*. [Other greenhouse plants with fragrant foliage when rubbed are *Eucalyptus citriodora*, *Leptospermum flavescens citriodora*, *Rosmarinus officinalis Robinsoniana* and *Laurelia aromatica*. In favoured places some of the foregoing are grown outdoors, but we doubt if they would do so in your locality. The collection might also include the Myrtle, Bay, *Humea elegans*, *Agathosma obtusa oblonga*, *Prostanthera retusa* and *Boronia elatior*. Doubtless other plants will suggest themselves to readers.—Ed.]

Romneya.—In the interesting notes by Mr. Fletcher and others upon *R. Coulteri* and *trichocalyx* (issue September 2, pages 425 and 430) no mention is made of one point of difference between these closely allied species, namely, that *R. trichocalyx* is scentless. The delicate fragrance of *R. Coulteri* is no small complement to its beauty.—HERBERT MAXWELL, *Monreith*.

Scentless Musk.—It does not seem a well-known fact that for the last ten years or more the Musk plant has entirely lost its delicious scent. It would be very interesting to hear if anyone had a theory which would throw light on this surprising disappearance.—M. M. S.

"The Rationale of Fruit Tree Planting."—The article in *THE GARDEN* (issue August 19, page 408) under the above title was, like the curate's egg, excellent in parts; it showed the miserable condition of trees when planted in grassland, yet gave no word of advice as to how such trees could be improved. It is a pity that trees do not, as a rule, succeed better in such positions, for they add greatly to the beauty and utility of what would otherwise be flat and uninteresting greensward, and I am afraid the admissions of the Royal Horticultural Society will deter many from planting on such sites, which is a pity, for there are a great many people in the suburbs who have no other site available. There are thousands of fruit trees thus planted every year in this County of Devon, so there are many opportunities for observing their behaviour; and one may be sure that, where trees succeed—and there are a great many that do—it is because they, by a lucky chance, have met with a combination of favourable conditions. So before any would-be grower of fruit in grassland decides to abandon the project, let him remember that, although the trees at Wisley failed, there are a large number of trees up and down the country which are quite satisfactory in spite of having been planted in grassland. Personally, I should not hesitate for a moment to plant trees on grassland if I wanted to do so.—W. BICKFORD.



ROSE BLUSH RAMBLER IN A READER'S GARDEN.

(not the sunniest), reached a height of 11 feet 3 inches this year; width 9 feet on the right side. They have flowered freely in very large trusses. The foliage is extremely healthy, showing no sign of blight, notwithstanding the cold winds and heavy rains. I enclose a photograph. I also send a photograph of the Rose Walk, in which there is a pillar of Alberic Barbier, a Rose often mentioned in *THE GARDEN*. It is very flourishing.—(Mrs.) MARGARET E. MACKAY, *Craigmonie, Inverness*.

Anomatheca cruenta from Seeds.—This charming little bulbous plant, which was illustrated in *THE GARDEN* for August 26 is most prolific in the production of seeds. They germinate readily, and if sown as soon as ripe the plants will flower the following season. At one time I was resident in a somewhat congested district of London, and flowering a number of plants of this *Anomatheca* in pots in the greenhouse, I saved a quantity of the pretty shining seeds. In the spring I scattered these here and there in the plot of ground called

I looked at it I was struck by the differences between the work of Nature and that of the florist. It seemed to me that, generally speaking, the florists far excelled Nature in brilliance of colour, but grievously failed in grace of form; while Nature, never erring in form, could not compare in colour with the florists, save occasionally, as in the Poppy or in masses of Bluebells and other wild flowers. I thought how delightful it would be if only the two could be combined, and if wild flowers had the brilliant hues of the garden, and garden flowers lose their clumsy lumpiness and gain a greater grace and refinement of form. Then we should achieve perfection! But I suppose this will never come to pass, for perfection is rare on earth, and if we had it everywhere we should cease to recognise it for lack of comparison. There are, however, a few florists' flowers which have attained it, such as single Roses and perhaps some others, but most of our loveliest garden gems are the wild flowers of other lands.—ANNE AMATEUR.

Single Rose Una.—One cannot but admire the blossoms of this single Rose. The plant has, however, a defect in growth, and that a serious one, as it is so liable to become leggy and bare at the base.—E. M.

Galegas.—The notes by "Anne Amateur" and others on *G. officinalis albiflora* prompt me to put forward the claims of Niobe (pure white) and Her Majesty (pale mauve and white). Anyone who grows these varieties will, I am sure, dispense with the old *officinalis Hartlandii* and other small-flowered forms. Niobe and Her Majesty are both strong growers; with me Niobe will run over 6 feet. The flower-spikes are fully four times as large as those of the white *officinalis*. Her Majesty is equally large, and for cutting both are first class. I might mention that I have never seen these varieties exhibited in good form.—T. A. W.

Kirengeshoma palmata.—It is a number of years since I first saw this plant at Kew, but it has not yet found its way into many gardens, even those where the newer hardy plants are in request. It is a good border plant, belonging to the same Natural Order as the Saxifrages. It has neat, greyish-green, palmate leaves and good-sized tubular yellow flowers. Its height is from 18 inches to 2½ feet. It is said to like peaty soil and partial shade with moisture. At Kew it used to grow at the base of the Rock Garden. It thrives well in the garden of Sir Herbert Maxwell at Monreith.—S. ARNOTT.

Potato Warwick Castle.—As a second-early variety, for crop, shapely tubers and cooking qualities I know of no variety to equal the above. At the end of July and early in August I dug huge crops of this Potato, all grown under ordinary cultivation among fruit trees. From many of the roots 6lb. of tubers were lifted. This year's experience, coupled with that of former trials, convinces me this is one of the most valuable Potatoes that Messrs. Sutton and Sons have introduced. Last April the tubers of the previous year's growth preserved their cooking qualities equally as well as when lifted in August, adding a further quality to the variety.—E. M.

Mimulus luteus.—In reference to this subject it will interest "W. D." to learn that this plant is freely naturalised in North Wales. In mid-summer the banks of lowland rivers, their tributaries, and even the peat drains of the far-away moors, are often gilded with it. At high altitudes

(say, 1,000 feet) the plant rarely grows more than about 10 inches high, but in better feeding-grounds—notably along the very boggy margins of the Conway at Trefriew—it has attained the height of 3 feet or 4 feet, the blooms being very large and fine. As "W. D." suggests, the pure yellow is the most redundant, but I have come across large patches of the gorgeously blotched, Gloxinia-like varieties, and very handsome they are. I cannot think, at the moment, of any flower of alien origin that has made itself so much at home in this country as *M. luteus*. By it our flora has become enriched by a species of a genus of which we have no native representative. "W. D." will be glad to know that I have some of it in my wild garden; but along the waterside, where it ought to flourish, it is not very happy, since it is so persistently attacked by slugs, which seem to prefer it to anything else.—A. T. JOHNSON.

Storing Apples.—One would like to say a word by way of endorsing the excellent editorial advice given anent this subject on page 409 of THE GARDEN. For years I stored my Apples in a cool, moist cellar and could wish for no better place, the fruits keeping well into the spring. The cellar, a large one equal to the entire area of the house, had a floor of concrete not entirely impervious to moisture, and, being of some depth, the two essentials—coolness and moisture—were assured. A friend a mile or two away, whom I supplied each year with a few bushels of fruits, also stored them in a cellar, and, complaining that the fruits did not keep, invited me to see them. The cause was obvious, the cellar being both dry and hot; or, as I put it to my friend, the Apples were supplying moisture to the cellar instead of the cellar to the fruits. What surprised me was the rapidity of the shrivelling of the fruits, my own remaining as plump as when gathered. One year some selected fruits of Lane's Prince Albert, put aside in a lidded box, were "discovered" in June, when in addition to being in first-rate condition they had assumed an almost golden hue. In storing the Apple it should be remembered that the fruit is quite hardy—1° or 2° of frost does no harm—hence a low temperature is essential.—E. H. JENKINS.

A Natural Bouquet of Roses.—I enclose a photograph of a branch of Rose William Allen Richardson, taken off a hedge in our garden,



A NATURAL BOUQUET.

showing Nature's arrangement of a bouquet of Roses from a single stem.—E. HOWARD MOSS, Leybourne, Witley, Surrey.

Recipe for Preserving Runner and French Dwarf Beans.—I have dried the tears I was shedding last week, for I have at last received a recipe for preserving Beans which promises to turn out well in winter and not be too salt nor too tasteless. I intend to adventure largely on it, and here send the recipe for the benefit of others. Mme. Bonhôte's method.—Take fresh young Runner or French Beans, which may be either preserved whole (if small) or sliced (if large). Place them in a perfectly clean earthenware crock or similar receptacle. Put a layer of Beans and sprinkle very lightly with salt, then alternate layers of Beans and sprinklings of salt till the crock is full. Cover with a clean cloth and leave it one night. The next day have ready some wide-mouthed glass jars (such as 3lb. jam jars). These must be perfectly clean, have been scalded with hot water, placed mouth downwards to drain dry, and finally warmed just before filling with the Beans. Stir the Beans round with a clean wooden spoon in the crock, so that all may be equally moistened with the salt liquor which has drained from them during the night. With a fork pack the Beans as closely as possible in the jars, pressing them together, as they shrink in steaming. Stand the bottles in a vessel over the fire with clean straw or hay between them to prevent them from moving while being steamed. Keep the vessel filled with hot water, filling it up as the water needs adding to. Steam gently for three or four hours. When the Beans are just sufficiently cooked (not overdone), fill the bottles with fresh boiling water. Tie down at once with vegetable parchment covers and store the bottles in a dry, cool place. When the Beans are required for table, warm them through for about ten minutes and serve with a little oiled butter.—ANNE AMATEUR.

FORTHCOMING EVENTS

September 12.—Royal Horticultural Society's Meeting and Exhibition, also National Dahlia Society's Show, at Vincent Square, Westminster.

September 13.—Sheffield Chrysanthemum Society's Show and Lecture.



A ROSE WALK IN A GARDEN AT INVERNESS.

A GARDEN BY THE SEVERN SEA

BY N. G. HADDEN.

WE are so wont to associate the successful culture of delicate flowering shrubs with South Devon and Cornwall that we are apt to forget that there are other equally

Crinums and Amaryllids. Eucalyptus globulus has this year flowered freely, the curious globose, fluffy heads giving the tree a very striking appearance. Acacias of several species also flower well when sheltered by a wall from spring gales.

favoured spots in our islands where frost and snow are rarely experienced. The narrow strip of fertile land between the Bristol Channel and the barren plateau of Exmoor is blessed with a singularly genial climate, never so relaxing as the South Coast in summer and yet so mild in winter that the most delicate plants are unhurt in sheltered positions. To one accustomed to the Midlands it is indeed a revelation to see so many tender shrubs flourishing in West Somerset. *Clianthus puniceus* smothering a south wall with its beautiful scarlet flowers, cottages bowered with dense tangles of Ivy-leaved *Pelargonium*s and *Solanum crispum*, trees of sweet-scented *Genista* covered with golden blossom, at once demonstrate to the gardener the mildness of the district. Myrtles attain the dimensions of huge shrubs, Sweet Verbena forms large bushes in the open, and the noble Fan Palm (*Chamærops Fortunei*) freely bears its great trusses of orange yellow bloom. *Benthamia fragifera* makes quite a large spreading tree, smothered in early June with its pretty cream-coloured bracts. Loquats luxuriate in the open and occasionally ripen fruit, while *Abutilon vitifolium* affords a rarely seen wealth of lavender blue colouring against a wall facing east.

In a very sheltered garden close to the sea at Porlock Weir, Mrs. George Blathwayt has formed a wonderful collection of rare and choice shrubs, many of which are generally thought to be too delicate for cultivation in English gardens. Here an Olive tree in full bloom, which has borne a fair quantity of fruit, Oranges ripening in the open, and a Lemon tree in flower are sights which raise much envy in the hearts of Northern gardeners. Growing alongside these are a number of luxuriant plants of the Bottle-brush Tree (*Callistemon rigidus*), whose curious flowers are admirably set off by the beauty of their young velvety shoots. *Kennedya monophylla* adorns a south wall with clusters of its beautiful purple Pea-flowers, and has for companions some young *Tacsonias*, *Poinciana Gilliesii*, *Abelia floribunda*, *Swainsona rosea* and *Edwardsia grandiflora*. In the border at their roots flourish colonies of the lovely *Ixiolirion Pallasii*—well called the blue Freesia—with many of the smaller South African and Californian bulbous plants appearing through the thick foliage of



BUDDLEIA ASIATICA.

An Indian shrub that flowers outdoors in a Severn garden.

One of the most interesting features of the wild garden is a colony of self-sown *Cinerarias* in various shades of blue and purple, looking as much at home as the Ferns and grasses around them. *Magnolias* revel in the mild, clear atmosphere, but of the many species which are grown here *M. parviflora* was the only one still in flower at the time of my visit, and it is certainly one of

the most attractive members of the genus. *M. grandiflora* thrives as a standard in the open in this district. The exquisitely chaste flowers of *Clianthus puniceus albus* make a charming contrast with the scarlet of the type on a west wall, but both plants seem to suffer terribly from the ravages of snails. On the same wall and in a narrow border in front of it a number of choice shrubs find a congenial home, among the most noteworthy being *Diospyros Kaki* (the Japanese Persimmon), *Berberidopsis corallina*, with beautiful scarlet pendent flowers; *Notospartium Carmichaeliae* (pink Broom), *Buddleia asiatica*, a number of *Oleanders* grown from seed, *Pentstemon cordifolius*, with a quantity of orange scarlet blossoms, *Embothrium coccineum*, and *Medicago arborea*—a wealth of orange Pea-flowers in early summer. *Calceolaria violacea* is a striking shrub, very distinct from the more familiar species, the spotted violet flowers being produced in great profusion. Here, too, *C. integrifolia* forms a veritable bush and for months is a golden sheaf of beauty. *Grevillea rosmarinifolia* looks the picture of health and bears a number of its extraordinary pink flowers, so absurdly suggestive of snails with outstretched tentacles!

A subtropical effect is afforded by such handsome foliage plants as *Hedychium Gardnerianum* (Ginger Plant), *Brachyglottis repanda*, *Cordyline australis* (flowering freely), *Dasyliirion gracile* and other Palms, which look thoroughly at home.

Sturdy young bushes of *Leptospermum scoparium*, *Boscawenii* and *L. s. Chapmanii*, grown from seed, have already begun to flower freely, and promise to become invaluable shrubs for sheltered gardens. As might be expected, the *Olearias* and other New Zealand shrubs are particularly successful in this district. *Olearia macrodonta*, with its Holly-like foliage, bears large heads of bloom

with the greatest freedom and attains quite a tree-like stature, while *O. Gunnii* and *Ozothamnus thyrsoides* are absolutely smothered with flowers for weeks together. *Olearia nummularifolia* is an attractive if less showy species, and *Veronica Hulkeana* is undeniably the queen of her race. Nothing could exceed the beauty of the newer forms of *Philadelphus* in early July, when the gracefully arched branches were wreathed in fragrant snowy blooms, double and single varieties being equally lovely. *P. Falconeri* is a very distinct species in which the petals are widely separated from one another.

Early in the year it was a great treat to see *Daphne Genkwa* in full flower, for it is by no means an easy plant to establish; here the slender leafless twigs were covered with the dainty lilac flowers, deliciously scented. Near by *D. japonica*, one of the first shrubs to flower, had been blooming equally freely. *Pittosporum Tobira*, whose waxy white flowers and shiny green leaves suggest a *Daphne*, looks the picture of health and vigour, while *P. undulatum* and *P. tenuifolium* quickly form very handsome evergreen bushes. The strong-growing *Clerodendron foetidum* is valuable

for its late flowering, but if the leaves are bruised, the reason for its specific title becomes rather too pronounced to suit all tastes!

A few other good things which must not be passed by in silence are *Berberis Gagnepainii*,



THE LATE-FLOWERING CLERODENDRON
FŒTIDUM.

beautiful in flower, fruit and foliage; *Crinodendron Hookeri*; *Raphiolepis japonica*, with its handsome, fragrant flowers and *Laurustinus*-like leaves; the silky-leaved *Convolvulus Cneorum*, a mass of delicate pinkish white blossom; *Smilax aspera*; *Melaleuca hypericifolia*, a scarlet Bottle-brush shrub; *Buddleia variabilis magnifica*, with immense spikes of rich purple, honey-scented flowers; *Cotoneaster angustifolia*, whose dainty white flowers will be succeeded by masses of scarlet orange berries in winter; many of the finest Cherries, and a splendid collection of Myrtles.

The Barberton Daisy (*Gerbera Jamesonii*) flourishes in a south border, and its flowers are much larger than are usually seen when the plant is starved in a pot. A great variety of *Pelargoniums* with sweet-scented foliage is another feature of the garden, the plants receiving no protection whatever; many of them are forms which are very seldom seen. *Primulas* luxuriate in the damp spring; the masses of *P. rosea*, *P. cashmeriana* (both mauve and white) and *P. japonica* must afford a rich wealth of colour when in flower.

It is impossible for me to refer to more than a tithe of the treasures of this remarkable garden, where every plant seems to be in vigorous health and to testify to the skill of Mrs. Blathwayt and her gardener, Mr. Pugsley.

THE MYRTLE

THE Myrtle is quite an old favourite plant, which has been held in great esteem from the most ancient times. It was from the common type, *Myrtus communis*, that the Greeks wove their wreaths that they placed upon the heads of their champions, the Common Myrtle was also dignified in other ways. To-day it is valued for the fragrance of its leaves and its sweet-scented flowers. It was first introduced into this country in 1597. Although not a hardy shrub in many parts of this country, it is well worth a warm corner or a position on a warm south wall where it would get the required amount of protection and give its fragrant flowers at the present time of the year. As a pot plant it is often a source of pride to many, while to others it is a plant of disappointment, owing to the paucity of its flowers, often due to lack of sunshine. The Myrtle is often given a shady corner under the impression of protecting it. If placed in full sun where it is well exposed, and consequently well ripened, it flowers much better; but, of course, it should have the necessary protection during the winter.

A PRETTY SHRUBBY IRID

(*ARISTEA CORYMBOSA*).

IN olden days this shrubby member of the Iris family was a great favourite for growing as a specimen plant in the greenhouse. Being of slow growth and somewhat exacting in its cultural requirements, it is now very rarely seen. Unlike most of the Iris family, it forms a sturdy stem of a stout, woody texture, which in its turn is well furnished with branches. The small sword-like leaves are arranged in a fan-like manner at the points of the shoots. During the blooming season, which is in the early autumn, the leaves are overtopped by racemes of charming blue flowers resembling those of a small Iris.

Cuttings take a long time to root. They succeed best in a mixture of peat and sand, put singly into small pots, and covered with a bell-glass in a greenhouse temperature. The mature plants thrive best in fibrous peat and sand, with just a sprinkling of loam. The drainage must be effective and the potting firmly done; indeed, the general conditions suitable for Cape Heaths will just meet its requirements.

Introduced from South Africa in 1803,

it was long known by the generic name of *Witsenia*, but it is now by botanists placed in the genus *Aristea*, the specific name remaining the same. H. P.

BOOKS

THE MANUAL OF MANURES.*

A SERIES of books with the general title of "The Increased Productivity Series" is in course of publication by *Country Life*, under the general editorship of Mr. P. Anderson Graham.

There is much land suitable for economic cultivation in this country that is not being put to productive use, and much that is being suitably cultivated that might be made to produce more. The present conditions of things have turned the attention of many, who have given little thought to the problem before, to the question of methods of increasing the supply of food raised in the country. That the supply can be increased is undoubted, but the doing of it will depend upon a variety of circumstances, among which the wider use of "artificial" manures is one.

This aspect of the question is treated by the author—whose wide experience in productive Belgium has made him familiar with the methods pursued in that distressed country—in a very

* "The Manual of Manures," by Henry Vendelmans (Ing. Agr. Belg.), 8vo., xvi. + 164 pp. (*Country Life*, 20, Tavistock Street, London, W.C., 1916; price 3s. 6d. net.)



ARISTEA CORYMBOSA NOW FLOWERING AT KEW.

able manner, and although some of his illustrations are perhaps not so apt as they might be, the book is on the whole clear and thoroughly dependable. It is a book to be studied from cover to cover—not to be used as a sort of recipe book—if the most economical use of manures is aimed at.

Where all is good it is difficult to pick out special points for particular mention, but we should like to draw attention to the sections on the use and abuse of lime, the care of farmyard manure, and the purchase of mixed manures, all of which are matters of the utmost importance to the horticulturist. Probably gardeners in general are better customers than the farmer to the vendor of mixed manures, although the farmer often pins great faith to them. There is no gainsaying the fact that great results often follow the application of mixed manures, but they are rarely, if ever, economical. Not only does one in paying for them pay for the brains of the mixer, but for two or three unnecessary freightages, for mixing, for loss in various weighings, and so on, and very often indeed for substances

will enable him to do. The need for an index is greatly lessened by the full table of contents which precedes the general account of manures (where, by the way, nitragin is spelt nitrogen—page xiii.), but we must say we regret the use of the Continental instead of the English form of certain chemical names, e.g., chlorure for chloride, sulphocyanure of ammonia for sulphocyanide, and the like.

Luther Burbank : His Life and Work.*—It has been said, and with some justice, that this is an age of premature biographies. However, no gardener will bring this complaint against the work before us. For many years Atlantic breezes have brought us whispers of the wonder-worker at Santa Rosa whose introductions would revolutionise the gardening craft. Now and then a herald of the approaching army reached us, in the fruit garden we grew the Giant Prune and found it good, but the Shasta Daisy proved fickle under insular skies. However, we waited and hoped, and we are now rewarded with a kind of interim report which will lead the hopeful yet to hope. For here we are admitted to the inner sanctuary :

favourable variations; but how thus can we explain his results? Who in the Old World could make a claim such as this: "Search this earth all over, climb every mountain, plunge into every cañon, valley and jungle, and when it is done, visit every park, garden, nursery and conservatory, and as many varieties of charming Lilies cannot be found as I have produced. All the earth is not adorned with so many new ones as are growing at my establishment." If all the Lily specialists are not now engaged in a headlong rush to California, it must be because they have not remembered Mr. Burbank's endowment of modesty. And, meanwhile, plant raisers would do well to retain their attitude of watchful waiting and—continue their own work.

OSTROWSKYA MAGNIFICA

THE Asiatic Bell-flower is a herbaceous perennial that deserves a much wider appreciation than it now enjoys. Few among the campanulate type so richly deserve the distinguishing adjective "magnifica" as this one, and once it has been seen, the ambition to possess it and grow it to perfection becomes little less than an obsession.

Well-established plants will attain the height of 4 feet to 5 feet. The upright stems, which bear whorls of soft grey leaves, are surmounted in summer by noble heads of handsome, bell-shaped flowers often 6 inches in diameter. Some have described these latter as silvery white with a satiny gloss of mauve, but this hardly conveys the precise impression. It would be nearer the mark, I think, to say that these exquisite cups hesitate in that tender tone which is neither pale mauve nor bluish lilac, but something of each, and that this colour is delicately shot with a silver sheen. At any rate, the effect is one of surpassing beauty and elegance.

The two main requisites in growing *Ostrowskya magnifica* are a sunny position and an ample root-run in light loam which

contains plenty of sand and grit. It is not the easiest of plants to grow, but it well repays the trouble taken. Roots, which are not very expensive, should be secured in early autumn, or before they have become active after their late summer "rest." This latter, it may be mentioned, is essential to the well-being of *Ostrowskya*, and it should be assured by covering the clumps with bell-glasses or hand-lights as soon as the flowering period is over. This would not, of course, be necessary should the weather be abnormally dry and the situation well drained. But, generally speaking, our seasons are too wet to permit unprotected roots to undergo that temporary ripening process or dormancy, without which the highest success cannot be expected. Winter protection is not usually necessary nor desirable, but late frosts and cold spring winds are often injurious if not screened off. A. T. JOHNSON.



A WELL-GROWN GROUP OF THE ASIATIC BELL-FLOWER, *OSTROWSKYA MAGNIFICA*.

included which are not of the least use in the cases for which they are intended to be used. Mixed manures have usually to be composed to produce results on a variety of crops on many different soils, and this with other things brings the price per unit of potash, phosphoric acid and nitrogen (which are the only things in the manure that should be paid for) much higher than it ought to be from an economical standpoint. Not infrequently one reads in the report of an analysis of a mixed manure, "its cost is not excessive for a horticultural manure"—as though manures for gardens ought to cost more than those for farms. Why should they, after due allowance is made for the bulk purchased at one time, a difference which can largely be squared by co-operative buying? The remedy is obviously with the purchaser, who must make himself familiar with the needs of his soil and with the properties of manures, and this the present book

we see the wizard in his garden, hear his views and study his methods, and in so doing we cannot but increase our wonderment. We learn that he anticipated the Mendelian re-discovery of 1900, but was, alas! too busy to publish it. We read that so acute are his senses that he can pass under review 20,000 Plum seedlings in an hour (333 per minute), selecting the best with infallible accuracy, even as to immunity from disease. So keen is his sense of smell that he can "ferret out an individual flower having any infinitesimally modified odour in the midst of a bed of thousands of such plants." And withal we learn that he is a modest man trembling at the Kodak's approach, save when his "accommodating" spirit triumphs over the weakness of the flesh. A carping spirit might object that his methods were those of every plant-breeder, crossing likely varieties and selecting

* "Luther Burbank : His Life and Work." Published by Grant Richards; price 10s. 6d.

NOTES FROM MYDDELTON HOUSE GARDEN

By E. A. BOWLES, M.A., F.L.S.

CYPELLA HERBERTI has been in flower for the last two months, and could have been chosen for a drawing on any day of them. For though the individual flowers are sadly fleeting, lasting but little longer than those of their near relatives, the Tigridias, the branching flower-stems bear them in marvellous profusion and two or three open daily, and few other Irids keep up so long a succession of flowers. Possibly *Sisyrinchium anceps* in its numerous varieties, or subspecies, whichever they be, may beat *Cypella*, but the contest would be a long and fairly even one. *S. chilense*, with small blue flowers and markedly reflexing segments, is well in the running. *S. angustifolium* var. *bellum*, as the "Kew Hand List" names the handsomer, larger-flowered and darker-coloured one, provides its flowers of soft slaty purple for all the summer months and well on into autumn, and the variety *Nuttallianum*, dwarfier than the other two and like a smaller-flowered *bellum*, is a lavish bloomer. But then their flowers are so small compared with *Cypella*'s that they make far less show in the garden, and I should feel inclined to give the long-flowering prize to *Cypella* after a three months' display, even though a longer waiting and watching would prove the *Satin-flowers* the actual winners. I have grown it here for over twenty years, and if ever it has got into a poor state of health it has been all due to my neglect, and not to its natural delicacy, for unless lifted and replanted every four or five years the bulbs get starved and small. It grows well here in the Peach-house border among tender and equally precious small plants, but thrives almost as happily in a flat bed in the rock garden that is neither specially sheltered nor otherwise blessed as to soil or aspect.

It is strange it is not more grown by the lovers of bulbous plants, for it is not at all an expensive luxury, and much easier to manage than the *Calochorti* that many people struggle with. It is a native of Buenos Ayres and also Brazil. Most probably the hardy stock we grow came from the former and less tropical home. It has sat for many portraits since it first flowered in Britain in the Rev. George Herbert's conservatory in 1824, and they vary so much that one would expect them to represent many varieties. I have never known it to vary at all, however, and am afraid the light straw-coloured figure in Loddiges' "Botanical Cabinet" and Miss S. Maund's drawing in Maund and Henslow's "Botanist" represent no living plants. In this latter figure the cup-shaped hollow centre and the curiously curved inner segments are coloured a rich green instead of creamy white. Dean Herbert's figure in the *Botanical Magazine* must have been drawn from rather a puny specimen, and the best portrait of it I possess is E. T. Smith's in Sweet's "British Flower Garden." The most interesting and curious part of the flower is the way in which the three inner segments are bent round until their long pointed tips reach almost to the ovary on the under side of the flower. Their shape and the purple stripes on their rolled margins make them look more like some brightly coloured shell than the segments of a flower. *Cypella* is such a beautiful and curious plant that, although I started out this morning to gather another for

drawing, I could not resist the grace and beauty of its golden faces.

I expect most people would consider *Yucca flaccida* the plant of the week here. It is always one of the freest of the whole genus to flower, and this season has suited it somehow, for the

leaves make a pleasant contrast with the lighter green grass; but now that something like a score of flower-stems rise out of them, the group is worth looking at. I should say this form is the hardiest and most reliable of all *Yuccas*, and in any ordinary border that is not waterlogged in winter it will soon spread into a handsome group of rosettes, some of which should yield flower-stems every year. These are not much over a yard in height, so that it is a good plant for a bold edging in front of shrubs or taller



CYPELLA HERBERTI.

(From a drawing by

E. A. Bowles.)

flower-spikes are extra numerous and large. I bought a large stock of it in a sale at a neighbouring nursery that was changing hands, and filled an irregularly shaped bed in a lawn with some of them. It has a good effect throughout the year, for even in midwinter its glaucous green

Yuccas such as *gloriosa* and *recurvifolia*. *Solanum Torreyi* also deserves notice, and if its leaves were not so large and so inseparable from its flower-heads it might have been chosen for drawing. I have tried to establish it here several times, but never before this season had the pleasure of seeing it break up from the ground late in May and flower in August. This may be due in great part to its habit of wandering underground and therefore appearing some distance away from its label, and at first looking so much like some coarse weed that it is in danger of getting its head hoed off or pulled out. This year I hunted carefully for it when a general weeding was about to commence in its bed, and placed a fresh label against the thing that looked most

like it, and am now rewarded by a fine head of its large Potato-like flowers among the long leaves and prickly stems. Each of the flowers is rather more than 2 inches in diameter and of a fine bluish violet, and about a dozen of them open at once on a head. It is a native of Texas and Arkansas, and one of the handsomest of the dwarf members of the genus that can be treated as a hardy herbaceous plant.

Just behind it *Lycoris squamigera* has shot up some lanky scapes, crowned with its pink flowers shot with lilac. Many people at first sight take it for a poor Belladonna Lily, and it is a good thing it generally precedes them in flowering, as it does not compare favourably with their more regular shape and more pleasing colouring. But it has a certain style of beauty of its own, and the gradual deepening of the flowers as they age from pink to a dull slaty lilac produces many quiet and unusual tones of colour in one head. Again, it is a forerunner of the Belladonna Lily and brings promise of better things, for in a season when the *Lycoris* blooms well, one may hope with a reasonable amount of certainty for good spikes of the *Amaryllis*.

Ceratostigma Willmottianum is in fine flower on the wall of the Orchid-house. Its flowers come so much earlier in the season, and are also larger than those of *C. plumbaginoides* (the plant we have long loved as *Plumbago Larpentæ*), that if it will prove as hardy we shall be pushing out the older plant for the newer one. But from the way an early November frost worried and depressed my large plant last season, I am half afraid for the little plants I have put out in an open border. As a younger and smaller plant it passed the winter before unscathed in this same sheltered spot, and I am wondering whether it was the suddenness of attack of that first frost after such mild, wet weather, or the size and woodiness of the plant, that caused it to suffer. I have often noticed that *Cistuses* are much more damaged by frost when they are large and woody than as young plants.

On the same wall, and a fine contrast with the brilliant *Gentian* blue of the *Ceratostigma*, a dwarf Pomegranate, *Punica nana*, has opened several of its glowing scarlet flowers. This is such a neat-growing and free-flowering kind that, although its flowers are rather small—only about 1½ inches in length—it is well worth a place on a south wall. A very pleasant surprise was the sudden appearance of a flower on a young plant of *Meconopsis quintuplinervia* raised from Mr. Farrer's seed. Although I had been carefully watering these plants during the dry weather, I had not noticed any sign of a bud among the hairy leaves; so that to find an open flower

with its four pendent petals of soft rosy lilac silk waving in the breeze seemed as though the welcome rains had worked a miracle. They made it no longer necessary to visit these Chinese treasures daily with a water-can, and so until this flash of lilac caught my eye I did not go up that little path.

In leaves and habit these seedlings were so much like *M. punicea* that when Mr. Farrer was here even he was deceived by them, and after a consultation we came to the sad conclusion that somehow or other one of us had mixed the seeds



THE NEW MONTBRETIA QUEEN OF SPAIN.

and my petted darlings were only *punicea*. Therefore I am all the more delighted that one at least of them is the rarer and newer plant, and I hope it will prove as perennial here as it appears to be in its home; for a rosette of handsome, dark green leaves, with fringes of golden hairs, beneath many stems a foot or more high, each bearing a hanging blossom suggesting an inverted *Colchicum* flower in colour and shape, but of delicate silky texture, is the sort of combination one wants to see year after year among the mossy rocks and without the trouble of annual sowings and plantings.

NEW AND RARE PLANTS

AWARDS OF MERIT.

Montbretia (Tritonia) Queen of Spain.—This may be described as a more shapely, refined, much improved *Star of the East*, which, quite the largest of its class, attracted everybody when first shown. That now under review faces one better, has broader perianth segments, and is possessed of crimson stems and calyces which go well with the full orange red of the flowers, the latter only slightly toned with crimson at the base. It is obviously a variety of good stature. Shown by Sydney Morris, Esq., Earham Hall, Norwich.

Rose Callisto.—A new seedling perpetual-flowering cluster Rose of much beauty and charm, and one of a type which the Rev. J. H. Pemberton has made very much his own during recent years. The new-comer is of soft canary and primrose yellow tone, the abundance of the flowers rendering it most welcome. Shown by the Rev. J. H. Pemberton, Havering-ate-Bower, Romford.

Laelio-Cattleya Thyone variety Bryndir (*C. aurea* × *L.-C. Ophir*).—A lovely form with golden sepals and petals in which the influence of *L.-C. Ophir* is well marked. The front and side lobes of the lip are of maroon crimson, the colour extending in a well-defined V-shaped outline at the centre, where it is in fine contrast with the orange gold of the upper half of the lip. It is handsome and distinct. From Dr. M. Lacroze, Bryndir, Roehampton (gardener, Mr. A. Taylor).

Laelio-Cattleya Golden Wren (*L.-C. Thyone* × *C. iridescens*).—A charming and distinct variety of much merit. Sepals greenish yellow, petals soft canary yellow, the pronounced golden yellow lip being heavily bordered with ruby crimson. A lovely hybrid virtually done in crimson and gold. From Messrs. Armstrong and Brown, Tunbridge Wells.

Dahlia Bizarre (Cactus).—Handsome, distinct and refined. The dominant tone is crimson maroon, the tips of the incurving florets white. A fine contrast.

Dahlia Alabaster (Cactus).—White, with long florets. We thought this a little coarse, albeit distinct.

Dahlia Mascot (Collarette).—Bold and handsome, this fine variety measured 5½ inches across. The pronounced magenta purple of the florets shades to white at the tips.

Dahlia Saffron (Cactus) is of a greenish yellow colour, the florets gracefully incurving to the centre. A high-class flower and distinct, though not attractive from the colour standpoint.

Dahlia Private Edward Druery (Collarette).—We consider this one of the most distinct of its class to date. The broadly ovate florets are of

terra-cotta with salmon; those of the collar pale primrose.

Dahlia Amethyst (Pompon Cactus).—A misleading name, we thought, for a variety in which we could detect nothing but magenta colouring. The form is pretty. These were shown by Messrs. J. Stredwick and Sons, St. Leonards-on-Sea.

The whole of the foregoing novelties were before the Royal Horticultural Society on the 29th ult., when the awards were made. The Dahlias, having been adjudicated upon by a joint committee of the Royal Horticultural Society and the National Dahlia Society, carry the award of merit of the former and the first-class certificate of the latter.

INFORMAL EDGINGS TO FLOWER BORDERS

In gardening it so often happens that the simplest arrangement is the most pleasing, and this is certainly the case with edgings to the hardy flower borders. Alas, how often a charming picture is blurred by an ugly margin! Nothing looks worse than badly kept Box edgings, and expensive tiles are unnecessary to the effectiveness

of the herbaceous border. The informal edging is in keeping with the hardy flower border, costs nothing and is no trouble to keep up. Here and there low-growing plants, like *Nepeta*, dwarf *Veronicas*, Tufted Pansies, Saxifrages and creeping *Campanulas*, should be encouraged in their wanderings, so long as they do not encroach too far over the pathway.

Plants of medium height, like *Pæonies*, *Mallows*, *Anchusas*, medium *Campanulas*, *Phloxes* and *Clary*, may here and there be allowed to fall over the walks with an air of careless beauty. Then, again, what a mistake it is to have the taller plants tied up in the middle like a wheat sheaf. Bold clumps of *Michaelmas Daisies*, *Phloxes* and the like are so often spoilt in this way. There is no need to drive in large stakes. These plants look all the better if allowed to grow loosely, just keeping them together with twiggy sticks such as are used for staking Sweet Peas, only much shorter. The plants will grow through the twigs and more or less hide them from view.

A very pleasing feature of the historic gardens at Claremont, Esher, Surrey, is seen in its hardy flower borders, which are kept bright with a succession of flowers throughout the summer and early autumn months.

TRITONIA PRINCE OF ORANGE

BY THE REV. JOSEPH JACOB.

I HAVE recently been enjoying some pots full of this glorious flower. It richly deserves this epithet if ever a flower did, for it is exactly the shade described in Ridgway's Colour Chart as "flame scarlet" when grown under cold frame and cold greenhouse treatment. The flowers open as one expects all well-brought-up flowers to do, and do not affect the half closed fashion like some of its half brothers and sisters, which behaviour on their part is, to say the least of it, very aggravating; and whenever I see such I invariably think of an obstreperous umbrella that will not go up, or a greenhouse door with a nasty bit of stone underneath it that will not let you in, and which makes you want Archbishop Magee's layman to come along and make an appropriate remark. By the way, a *Tritonia* which I have under the name of incomparable, but which I can only find in the list of the vendor from whom I obtained it, has a most curious base, if one may use a Tulip term to describe the part of the bloom to which



HARDY FLOWER BORDERS AT CLAREMONT, ESHER, SURREY.

I would call attention. It might be made of the thinnest talc, it is so transparent. Hyaline-fenestrated appears to be the correct botanical way of describing this uncommon idiosyncrasy. One wonders what can be its use in the economy of the plant. Is it to let some crawling thing see what is inside, or is it to lure some small flying insect to think it can get out that way, so that it makes a nice hullabaloo when it finds it cannot?

In Prince of Orange there is not much of the hyaline-fenestrated left—a little more than, say, the tail appendage in man or the digitate formation in the foot of a horse, but not enough to mar the solid, rich look of the open blooms. These are borne from three to six on slender, wiry stems about 9 inches to 1 foot in height, each corm sending up two, which rise well above the rather dwarf Freesia-like foliage. Such a beau on the greenhouse staging naturally made me ask our good friend Nicholson, "Who is that chap?" "Oh," he said, "he is one of that curious weathercock family the Tritonias. They are supposed to get their name from the variable direction of their stamens in different species, for triton means a weathercock."

Nicholson, however, gave me such an account of the Tritonia children and the difficulty that they seemingly have in knowing to whom they really belong, that I am more than satisfied about the appropriateness of the name; for is not a weathercock a symbol of uncertainty or changeableness, and *crocata* might be an *Ixia*, and *crispa* a *Gladiolus*, and *Pottsii* a *Montbretia*. The "glorious uncertainty of it is of mair use" to botanists than to gardeners, while to those who are only ignoramuses and 'prentice hands this digging deep and finding new facts whence all this jumble-up proceeds is—well, not exactly their meat.

Now, Shakespeare, put my thoughts into words. "But yet the pity of it, Iago. O, Iago, the pity of it, Iago."

THE ROSY VIRGIN'S BOWER

(*CLEMATIS MONTANA RUBENS*).

THOSE who do not possess this treasure should not fail to plant it during the coming autumn. It is a comparatively recent introduction from China, and, if anything, it is even harder than the well-known *C. montana*, native of the Indian mountains. By the way some botanists are of the opinion that it should be given specific rank. *Clematis montana rubens* has pretty rose-coloured flowers, and it is an admirable subject for garlands over old stone walls (not red brick), low trees, tree stumps, arches and such like places. It is of easy culture in almost any soil, and is nearly as rampant as *Clematis montana*. It is one of those exceedingly pretty plants that should find a place in every garden.

THE HARDY FRUIT CROPS

By EDWIN BECKETT, V.M.H.

AFTER a most promising outlook in the early part of the year, 1916 will long be remembered as one of the worst so far as the principal fruits are concerned. During my long charge at Aldenham I have never known such a dismal failure without some apparent reason, especially so in relation to Apples. There was a great profusion of bloom on the majority of the trees, which appeared to be quite strong and healthy. We had no frost during the flowering period, which is rather unusual for this locality,



CLEMATIS MONTANA RUBENS CLOTHING AN OLD TREE STUMP.

but, unfortunately, the flowers failed to set. All sorts of reasons have been put forth as an excuse for this, but none has so far satisfied me as to the real cause.

I shall never again be a strong advocate for planting only a few varieties which are known to be of the best quality both for cooking and dessert, though I must confess to having been so in the past, as unquestionably many of those which could only be classed as quite second quality have cropped the best with us this year. Among these are Scarlet Pearmain, Hambledon deux Ans, Hoary Morning, Small's Admirable, King of the Pippins and Cellini Pippin. Some trees

of Keswick Codlin, Lane's Prince Albert, Blenheim Orange and Cox's Orange Pippin are fairly good, the last four, of course, being of good quality.

Pears, generally speaking, were not overladen with bloom, and set and swelled in far better proportion than the Apples, but not satisfactorily.

Plums.—These never looked more hopeful at the flowering period. They set in abundance, but in the majority of cases failed to swell. Exception, however, must be taken to Early Rivers, The Czar, Victoria, Oullin's Golden and all kinds of Damsons, especially The Merryweather; but we have medium crops of Monarch, Belle de Louvain, Coe's Golden Drop, Pond's Seedling and Kirke's.

Peaches and Nectarines.—Peaches are very thinly cropped, both inside and out, except in the very early houses. These flowered and set freely, but failed to swell, and I can assign no cause for this. The best varieties outside are Goshawk, Peregrine (heavy crop) and Hale's Early. Nectarines are somewhat better, the best being Elruge, Lord Napier and Rivers' Early Orange.

Apricots flowered freely, but are a distinct failure.

Cherries.—A grand crop and excellent fruit of all kinds.

Bush Fruit.—All kinds of bush fruit were splendid. We had a magnificent lot of Black Currants—the best for some years.

Loganberries and the Newberry are fruiting very heavily.

Strawberries were exceptionally fine, and continued good over a very long season.

SOWING BROAD BEANS IN THE AUTUMN

ONE more season has proved the advantage of sowing these Beans at the end of October instead of early in the year, as was formerly the fashion. Even in heavy soils experience has proved over and over again the wisdom of sowing Broad Beans in October, providing that the ground has been well and deeply worked. Given ordinary winter weather, the plants do not suffer from frost as much as some would imagine. The advantage of

autumn sowing lies in the fact that the crop is fully a month earlier, and the plants do not suffer from aphid attacks in the same way as spring-sown plants do; neither does the drought in May, which is all too often experienced, check the growth. Any Longpod or Windsor variety is equally good. The main point in cultivation is to deeply trench heavy, adhesive soil to ensure good drainage for surplus water from heavy rains during the winter months. The greatest harm to these autumn-sown plants is from cutting winds in February or early March, when some protection should be given.

E. M.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

Apricots.—When all the fruits have been picked, the trees should be examined and any pruning may be done. With proper attention during the summer, very little will be necessary. The less the knife is used the better, as Apricots are liable to gumming.

Wall Trees.—These, as a general rule, continue to grow freely until late in the season; therefore it is advisable to do everything possible to get the wood thoroughly ripened and matured. To this end all foreright growths must be removed from such trees as Apples, &c., and the shoots may be thinned on Peaches.

The Kitchen Garden.

Celery.—Later batches of Celery must be afforded copious supplies of water and liquid manure if the weather proves dry. Weeds and decayed foliage should be removed at intervals. Plants for furnishing an early supply will need more earth placed around them, but before doing so the leaves may be tied together with a piece of raffia. This should be cut away as the earthing up proceeds. All such work must be performed when the foliage is quite dry.

Cabbage.—This is an important crop in all gardens, especially what is termed Spring Cabbage. To secure nice firm heads next April or May it will be necessary to make a plantation at once. Select a warm border for a few rows, and plant the main batch in an open situation. Ground recently occupied by Onions is often chosen, and as a rule the results are most satisfactory. It should be cleared of weeds and forked over a few inches deep, when it will be ready for planting. Small kinds should be placed a foot apart, and larger varieties 18 inches between the rows and 15 inches from plant to plant. Give them a thorough watering, and when they are re-established use the hoe freely between the lines. If slugs are prevalent, give a dusting of lime in the early morning. Another batch may be planted out a fortnight hence.

The Flower Garden.

Border Carnations.—The layers have rooted sufficiently for the stems to be severed by means of a sharp knife. This operation should be carried out a few days in advance of planting them in their permanent quarters. A border facing south-west should be chosen, and if the soil is of a heavy nature it must be lightened with old potting soil, sand, or material from the rubbish fire. Each layer should be lifted with a ball of earth. Do not replant deeply, but the soil must be made firm about the roots. A few plants can be potted off and placed in a cold frame for the winter. These will come in useful to fill up any gaps.

Fruit Under Glass.

Late Vines.—To keep Grapes in a good condition for furnishing a supply through the winter it is essential that they be ripened by the end of this month. Vines that are producing heavy crops must be afforded ample moisture at the roots, and the atmosphere must be on the dry side. To allow any superfluous moisture to escape, the top ventilators may be left open an inch or so during the night, and a little fire-heat will be beneficial. Lateral growth must not be allowed too much freedom.

Outside Borders.—These will require attention, and if raised they will need water liberally, especially if the weather is dry. Later on, when rain is more frequent, a few sheets of galvanised iron may be placed over them.

Plants Under Glass.

Clerodendron fallax.—Plants of this are showing for flower, and they may be removed to a cooler house. If the white fly is present, the plants should be dipped in or thoroughly sprayed with some insecticide.

Begonias.—The fibrous-rooted section are splendid for a warm greenhouse, and a batch of cuttings inserted now will furnish nice decorative plants in the spring. A compost containing a

good proportion of decayed leaf-mould should be employed.

The Stove.—The blinds can be dispensed with and all permanent shading washed off. A little fire-heat will now be beneficial.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)
Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Celery.—To obtain the best results, Celery should be earthed up a little at a time at frequent intervals. As frost may be experienced at any time now, the earliest batch should be attended to without delay. Select a dry day for the work, getting the soil into as fine a condition as possible. Later plantations were somewhat soured with so much cold, showery weather in June, but the plants are now growing rapidly. After trimming off the side growths and lower small leaves, tie the leaf-stalks together with some weak matting at a point lower down than it is intended to place the soil. These ties need not then be removed, as with the damp earth covering them they will decay in a few days. If the plants seem dry at the roots, a good soaking of clear water should be given before earthing up.

Vegetable Marrows.—These require large quantities of water during dry weather. Keep the growths well thinned out and cut the fruits as soon as they are large enough for the kitchen, otherwise the plants become exhausted and cease fruiting. Towards the end of the season a few fruits may be left to mature thoroughly, and these will keep fresh for a considerable time if stored in a dry shed secure from frost. This is a common practice with cottagers in some districts in England, who aim at having a dish for Christmas, and this might well be copied over a wide area this autumn.

Tomatoes.—The later batches of these must now be encouraged to ripen their fruits by removing a part of the foliage to expose them to the sun. Plants carrying heavy crops should be regularly stimulated with some reliable artificial manure. If it is found necessary to clear out the house before all the fruits have ripened, these may be cut when green with a good portion of the stems attached and hung in a vinery, where they will colour sufficiently to be quite useful for cooking or for making sauce.

Preserving Surplus Vegetables.—A large surplus of vegetables is generally found at one time or another and is invariably allowed to waste, when with little trouble and small initial expense much that has hitherto been wasted may be turned to good account, and at the same time render this country more independent of Continental supplies. Peas, Beans, Asparagus, Tomatoes and Carrots, as well as all kinds of small fruits, can be successfully preserved by sterilisation.

Pickles.—The pickling of various vegetables is perhaps more often practised than sterilisation, but it is necessarily done in much smaller quantities, a favourite mixture being Onions, Gherkins, Cauliflowers, Kidney Beans and Capsicums. Small Onions, grown on poor soil and thoroughly dried in the sun, suit best. The Cauliflower should be pure white and compact heads, and the Kidney Beans fresh and crisp as for table use.

The Flower Garden.

General Work.—The principal work to be done now will be the propagating of the various bedding plants. The tender subjects having been already dealt with, the main batches of Pentstemons, Antirrhinums and Calceolarias can be rooted in cold frames, where they may remain all the winter. The various shades of Antirrhinum come fairly true from seed, but where uniform beds of one shade are desired, it is best to raise the plants from cuttings. These will be found in greater abundance on seedling plants. Select the cuttings from plants showing the same shade and habit. Calceolarias can be rooted successfully if put in at any time up to the end of October. Make the cuttings of a uniform length; they root equally well whether cut at a joint or midway between. The variety amplexicaulis should be rooted in a warm pit and kept free from frost during the winter.

Violets.—Where the young plants have been growing outdoors during the summer, they should now be moved into cold frames, planting them in a mixture of fresh loam and leaf-mould and keeping them as near the glass as possible. Syringe them daily and close the frames early in the afternoon until they get a fresh start again, after which they should be kept quite cool and airy.

Plants Under Glass.

Chrysanthemums.—Continue to disbud and tie these up regularly. Feeding should also be done regularly. At this season it is advisable to make arrangements for protecting the plants, should a frosty night occur. This may be looked for at any time now. The house may also be got ready for the reception of plants with the most forward buds. It is well, however, to leave them outdoors as long as the weather is favourable.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)
Glamis Castle, N.B.

TRIAL OF TOMATOES UNDER GLASS

ALL who are interested in the cultivation of Tomatoes, and who can spare the time for a visit to Wisley, are invited to inspect the Tomato trial, the results of which are published herewith. The trial was one of the largest ever undertaken at the Royal Horticultural Society's Gardens and included 116 stocks.

The seed was sown in pots on February 28, and the seedlings pricked out into 60 pots and potted subsequently into 6-inch pots. After the plants had formed their first truss and had been severely checked they were planted in rows in a large bed made up in the Fig-house, the Figs having been removed to the open in order to make room for the Tomatoes. Five plants of each stock were grown under glass, and seven were planted in the open in order that rogues and trueness to type might be more thoroughly tested. The yellow-fleshed and "fancy" varieties were grown in a neighbouring house. The plants under glass have done remarkably well, and during the next fortnight may be seen at their best. In addition to the varieties sent in by the trade, several first crosses raised at Wisley were included. The object of these first crosses was to ascertain whether they would give a higher yield than the parents by the side of which they were grown. Of these, one, a first cross between Sunrise and Merrivale, was highly commended by the committee, but it has shown little, if any, superiority in yield over that of the male parent Merrivale, which it closely resembles in fruiting habit. One of the most curious results of the trial was the excellence of Winter Coral as a summer-fruited variety. It will be noted that two yellow-fruited varieties have gained high awards. Although these varieties are not of importance from a market point of view, they are well worth the attention of gardeners. The small Plum-like Golden Nugget is of exquisite flavour and suitable for eating raw or for use in salads. It is, moreover, remarkably prolific. The larger yellow Tomato Golden Sunrise is a handsome fruit of good flavour and a large yielder.

As the result of the Wisley trial the following awards have been made:

First-Class Certificate.—Golden Sunrise, raised, introduced and sent by Messrs. James Carter and Co.

Awards of Merit.—Ailsa Craig, raised by Mr. A. Balch, sent by Messrs. W. H. Simpson and Sons; A.M., 1910; previous award confirmed. Golden Nugget (for flavour in salad and dessert), introduced by Messrs. Sutton and sent by them and Messrs. Barr and Sons; F.C.C., 1894. Kondine Red, raised and introduced by Mr. R. Holmes, sent by Mr. R. Copley. Kondine Red Selected, raised by Mr. R. Holmes, introduced and sent by Messrs. Laxton Brothers. Merrivale, raised, introduced and sent by Mr. P. A. Cragg. Water Baby, raised, introduced and sent by Mr. A. Balch. Winter Coral, raised and sent by Mr. W. Camm.

Highly Commended.—Aviator, raised, introduced and sent by Messrs. Dickson and Robinson. Best of All, introduced and sent by Messrs. Sutton and Sons. Evesham Wonder, raised, introduced and sent by Mr. J. N. Harvey. Golden Perfection, raised by Mr. Gibson, introduced and sent by Messrs. Sutton and Sons. Ham Green Favourite Selected, sent by Messrs. Barr; F.C.C., 1887. Muirtown Seedling, syn. Sunrise, raised by Mr. P. Macdonald, introduced by Mr. F. Darwin, sent by Mr. J. G. White. Princess of Wales, introduced and sent by Messrs. Sutton and Sons;



A COMMON FAILING WITH PEARS.

A.M., 1905. Sunrise × Merrivale, raised and sent by the Royal Horticultural Society, Wisley.

Commended.—Ayrshire, raised, introduced and sent by Mr. A. Balch; A.M., 1910. Beattall Selected, introduced and sent by Messrs. Laxton. Money-maker, raised, introduced and sent by Messrs. Dickson and Robinson. Model, raised, introduced and sent by Messrs. Dobbie. Northern King, raised by Dr. Crawford, introduced and sent by Messrs. Barr. Stockwood Seedling No. 1, raised, introduced and sent by Mr. G. Rodman.

ANSWERS TO CORRESPONDENTS

FLOWER GARDEN.

SCENTLESS MUSK (Memory).—It is a very remarkable fact that, for some unaccountable reason, the Musk of our gardens has entirely lost its fragrance. The fragrant Musk might possibly linger in some cottage gardens, but we have not had the good fortune to find it, although we have searched for it during the last five or six years.

CLEMATIS DYING OFF SUDDENLY (W. H.).—It is not an unusual occurrence for plants of garden varieties of Clematis to die suddenly in the way you describe, and unfortunately nothing, so far as is known at present, can be done to prevent it. The suggestion has been made that the plants may have been weakened constitutionally by over-propagation or too much intercrossing, while another suggestion has been put forward that grafted plants are more susceptible to disease than those grown on their own roots. Plants which have the base of the stem and the roots exposed to full sun certainly seem more liable to contract the disease than those planted

in such a position that the base of the stem is shaded while the upper parts of the branches obtain full sunlight.

TREES AND SHRUBS.

REMOVING BRANCHES OF THE DOUGLAS FIR (M. C.).—Your Douglas Fir can be pruned at once without causing the tree injury. It is quite probable that there may be a little exudation of resin from the wounds, but not sufficient to cause injury to the tree. The wounds should be coated with coal-tar when first made.

PRUNING A LAVENDER HEDGE (Sonia).—Your Lavender hedge can be cut back next spring, but do not cut it into very old wood, for such wood does not produce new shoots very readily. The best thing to do with an old, overgrown hedge of Lavender is to destroy it and begin again with young plants. If, however, the pruning does not answer, it will be easy enough to replant the hedge another year.

ROSE GARDEN.

MULCHING ROSES (Mona).—We do not advocate winter mulching of Rose beds. It is a good plan to have some well-rotted manure forked into the beds during October or November, but if left on the surface it keeps the roots cold and wet. This dressing in autumn could be followed by a dressing of bone-flour in the spring, soon after pruning. In May and June a light mulching is advantageous upon a light soil.

NO FRAGRANT ROSES IN CANADA!—A friend just returned from Canada, where he has been for five years, tells me that none of the Roses and Sweet Peas grown out there has any fragrance, and that the Canadians say they did not know that Roses ever were fragrant. I should be much interested to know the cause of this, if you could kindly tell me.—EGDON. [We fancy your friend's olfactory nerves must be at fault, and we cannot quite believe the Canadians are so simple as to believe that Roses possess no fragrance. We have never heard that fragrant Roses in England lose their perfume when sent to other countries. Tell your friend to try a few plants of General Macarthur, Mme. Abel Chatenay, Hugh Dickson, Château de Clos Vougeot, &c., and we fancy he will soon be undeceived.—ED.]

FRUIT GARDEN.

PEARS CRACKING (J. B.).—The cracking of the Pears is due to the fungus *Fusicladium pyrinum*, causing the disease called Pear scab. This fungus attacks the shoots and causes them to crack in a somewhat similar manner, and we recommend you to have all the dead and dying wood pruned out of the tree during the winter, and then spray the tree thoroughly with a solution of 1 lb. of caustic soda to 10 gallons of water to get rid of the lichen and so on. These measures will entail some trouble, but the reward will be edible Pears if you follow it up by spraying with half-strength Bordeaux mixture next year, once as soon as the petals drop, and again about the middle of June.

FRUIT TREES DYING (D. S.).—It is unlikely that the same thing is affecting all the fruit trees of which you speak. We suspect gumming in the case of the Apricot and the Myrobalan, and this may possibly be traced to neglect to paint all large wounds that are difficult to heal. Bacteria and fungi find an entrance into all such wounds and often do very considerable damage. With the Gooseberries and Currants, probably a fungus called *Botryosporia ribis* is at work, and as soon as they are seen, the shoots bearing the withering leaves should be removed by cutting them cleanly out of the bush. All the ground should be limed before the autumn digging.

VINES AND CREOSOTED STAGING (H. B.).—In the absence of some strong evidence to the contrary, of which we have no cognisance, we certainly think that the strong odour of creosote in the atmosphere of the vinery from the commencement of young and tender growth must be held responsible for the serious injury to your Vines. The atmosphere of a vinery during the early stages of the Vine's growth is necessarily kept close and confined, and so would be heavily charged day and night with the rank odour of the creosote, which evidently proved too much for the Vines. We have heard of similar damage before, but such cases are rare, as few would care to expose their Vines to such risks.

PEACH TREE RAISED FROM PEACH STONE (M. C.).—Like will always produce like, and your tree in time will no doubt produce Peaches. Seedlings invariably form a strong tap root (an elongation of the stem underground). We should advise you to take up your tree this autumn and cut back the tap root by one-third of its length; also shorten all the strongest of the roots in the same way, and the tip ends of all the small shoots. In replanting the tree, be careful not to bury the roots too deeply, and add a bushel of fresh loamy soil to that in which the tree is planted, adding a pint of bone-meal and half a gallon of lime. Press the soil firmly over the roots, and cut back at the same time the strongest of the shoots to half their length.

STORING APPLES AND PEARS (J. G. S. B.).—The floor of a billiard-room is too dry, airy and light to store

fruit in, the effect being the drying up of the juices of the fruit by too rapid evaporation. The cellar ought to be all right, provided you can introduce a current of air through it to sweeten it and prevent mildew. The admittance of air must be under control, so that its admission can be regulated according to the weather. The Pears should be at the warmest end. Our correspondent is no doubt alive as to the importance of not gathering later varieties of Apples and Pears too soon—if they are gathered too soon, nothing can prevent them from shrivelling—and also the importance of not bruising the fruit in gathering. Bruised fruit will go bad in spite of its being stored under perfect conditions. The principle aimed at in storing fruit is to provide a rather low and equable temperature and a slightly moist air. The mean temperature to aim at should be from 48° to 53° Fahr. Light and too dry air must be excluded. Too much air is not good at any time. We do not know of a pamphlet specially devoted to this work. The Royal Horticultural Society may have one; write to the Secretary, Royal Horticultural Hall, Vincent Square, Westminster.

MISCELLANEOUS.

WEED IN THE KITCHEN GARDEN (Subscriber).—The specimen sent for identification is *Oxalis corymbosa*, a plant naturalised in many places, and one of the worst weeds to destroy when once firmly established in cultivated ground. All that you can do is to keep digging it up and picking every tuber out that you can see. The tubers should then be burnt. It will probably take several years of continuous work to clear the ground.

LAWN SAND (Pheasant).—Lawn sand is generally mainly a mixture of sulphate of ammonia with sand. The sulphate of ammonia is to be used at the rate of not more than half a hundredweight to the acre and mixed with sand or fine soil in sufficient quantities to permit it to be distributed evenly over the surface to be treated. If Clover is not objected to, superphosphate may also be added and intimately mixed with the sand and sulphate of ammonia, but do not mix basic slag with it. Sulphate of potash may also be added if it can be obtained. The superphosphate may be used at the rate of 4 cwt. to the acre; the sulphate of potash at the rate of 2 cwt. to the acre.

THE SIX BEST PINK PERPETUAL CARNATIONS (J. E. S.).—Just which will eventually prove the six best of these in your district is only to be proved by experience. The following, however, have their good points: Pink Sensation (the largest extant), Enchantress Supreme, Salmon Enchantress (both of surpassing beauty and excellence), May Day (one of the most free), Nora West and Alice. Winsor we should not place in the six best to-day, nor even in the twelve best. Before it would certainly have to come Bedford Belle, Queen Alexandra and Lord Kitchener, all high-class varieties and of true pink or salmon tone as opposed to rose or cerise shaded sorts. Mary Allwood, variously described as "cherry salmon" and "cardinal pink," is unique, and should be in any selection.

A TROUBLESOME WHITE INSECT (Puzzled).—The insect to which you refer as being so troublesome in the greenhouse is no doubt the white fly, *Aleyrodes vaporariorum*, a very troublesome and persistent pest attacking a large number of different greenhouse plants, and very difficult to deal with. The most satisfactory results have been obtained by fumigating with hydrocyanic acid gas, but unless the house is specially constructed so that the ventilators can be opened from outside, this process is not without danger, as hydrocyanic acid gas is a very deadly poison to human beings as well as to insects. The next best thing is fumigation with a nicotine preparation, but this does not kill the eggs nor does it apparently kill the scale-like larvæ of the fly which you will find in considerable numbers on the under sides of the leaves. Where it could be applied, fumigation combined with dipping would doubtless be effective, using for the latter purpose a dip made of soft soap (a handful) into which flowers of sulphur had been kneaded and the whole dissolved in one and a half gallons of water. This is, of course, impossible with Tomato and many other greenhouse plants, and the only thing with them is to fumigate at intervals of two days so as to catch the newly hatched flies before they have an opportunity of laying eggs. Usually three repetitions of the fumigation suffice to keep the pest in check.

NAMES OF PLANTS.—J. E. K.—1, *Tunica Saxifraga*; 2, *Santolina Chamæcyparissus*.—W. H. C., *Colonel*.—*Ophiopogon japonicus*.—Spink.—1, *Hyssopus officinalis* (Hyssop); 2, *Phlomis viscosa*.—Scottish Farmer.—*Senecio tanguticus*.—S. Lloyd.—*Allium sphaerocephalum*.—E. S.—Blue flower, *Hibiscus syriacus* var. *coeleste*; white flower, *H. s. var. Totus albus*.—H. V. B.—We have been unable to trace the name of Italian Hemlock; perhaps if a specimen were sent the plant could be identified.

The War Office notifies that from now onward all papers posted to any neutral European country will be stopped, except those sent by publishers and newsgents who have obtained special permission from the War Office. Such permission has been granted to THE GARDEN, and subscribers who send to friends in Denmark, Holland, Norway, Sweden, Switzerland, Spain, Portugal, Greece, and Roumania should order copies to be despatched by the Publisher from 20, Tavistock Street, Covent Garden, W.C.

** The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

No. 2339.—Vol. LXXX.

SEPTEMBER 16, 1916.

NOTES OF THE WEEK

THE time for planting spring-flowering bulbs is here once again, but this year, in consequence of the Government prohibition of imports, there are no Dutch Hyacinths, while large Dutch Crocuses and early single and double Tulips, hitherto almost entirely grown in Holland, are very scarce. It is gratifying to learn from the bulb-growers of this country that the loss of Dutch bulbs is more than compensated for in the excellent supplies of British-grown Daffodils, May-flowering Tulips, and smaller bulbous flowers, like *Chionodoxas* and *Muscari Heavenly Blue*. We are on the threshold of the new and important industry of home-grown bulbs, and we feel confident that the day is not far off when thousands now engaged in warfare will turn their thoughts and energies to this peaceful industry. For our own part, we are anxious to lend every assistance to bulb-growing at home, and our next number will be largely devoted to the cultivation of bulbs for present planting. Life would be too dull for words without these cheerful flowers in springtime.

The Original China Aster.—Once again the single China Asters are flowering with great freedom in the woodland at Kew, where they brighten the landscape with a very pleasing effect. It is interesting to note that these plants are the descendants of the original China Aster (*Callistephus hortensis*), with mauve flowers, reintroduced a few years ago. At first the flowers came true from seed, but they now vary in colour, pretty shades of mauve, purple, pink and red with a sprinkling of pure white, being obtained from a packet of seed. Seeds may be sown in May where the plants are to flower. The effect may well be copied by those who appreciate touches of colour in the woodland at this season.

Cyrilla racemiflora.—One of the most attractive shrubs at Kew at the present time is *Cyrilla racemiflora*, which is flowering freely quite close to a large bed of the white Cornish Heath that will be at its best in a few days' time. The *Cyrilla* is an evergreen bush with racemes of small white flowers not unlike those of a shrubby *Veronica*. It is a native of North Carolina, and although introduced as long ago as 1765, is still a rare plant in gardens.

Rose Mrs. Bertram J. Walker.—This Rose, illustrated on page 452 of this issue, as having done so well in Scotland, has also been a great success in Southern gardens. A few weeks ago we saw it flowering with great freedom in Mr. Edward Mawley's garden at Rosebank, Berkhamsted, at a time when most other Roses were off colour. The blooms are large and full, of superb form, and deep cerise pink of even colouring throughout.

Edinburgh Show Cancelled.—The Council of the Royal Caledonian Horticultural Society regret that owing to the conditions in the country caused by the serious depletion of labour, combined with recent unfavourable weather conditions, they did not feel justified in proceeding

roof tiling, which it will afterwards displace with a force that is truly surprising. A question is thus raised which has many times been discussed. But there is only one solution: where the stability of the structure is threatened, as in this instance, the Ivy must go.

Should Onions be Thinned and Hoed?—On another page we publish a short and very practical article on "How to Grow Onions for Keeping," in which the writer emphasises the importance of not thinning and not using the hoe between the rows from the time of seed-sowing until the harvest. We feel sure that many cultivators will take exception to this advice, but the reason given is that loose soil allows the

Onion fly to reach the bulbs. We know of market gardeners who never thin or hoe their fields of Onions, and yet the crops are so heavy and crowded that the bulbs literally push one another out of the ground. The writer of the article in question claims to have grown Onions for twenty years in the way he recommends without having been troubled with the Onion fly.

Agricultural Returns, 1916.

The following is an extract from the Preliminary Statement of the Agricultural Returns for England and Wales just issued by the Board of Agriculture and Fisheries: "As was expected after the very large increase last year, the area under Wheat shows a reduction, the total area, 1,912,000 acres, being a quarter of a million acres less than in 1915. The total is, however, much greater than in recent normal years, and (except for 1915) is the

highest since 1899. Barley shows a recovery of 100,000 acres from the low record of 1915; but Oats show scarcely any change. Beans and Peas show considerable reductions, the area under these two pulse crops being about seven-eighths of that returned in 1915. Potatoes and Mangolds have both fallen off by some 35,000 acres, but Turnips and Swedes increased slightly. Among minor crops the chief alteration is in the acreage of Mustard (whether for seed or fodder), which is more than double that of 1915."

* * * Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.



CHINA ASTERS IN THE WOODLAND AT KEW.

with the fruit and flower show which they had arranged to hold in Edinburgh on the 13th and 14th inst. They accordingly reluctantly decided to cancel all arrangements.

The Removal of Ivy from St. Margaret's Church Tower, Rochester.—The destruction of the Ivy growing over the old tower of St. Margaret's Church, Rochester, has given rise to a wave of indignation among many of the parishioners and others. That an Ivy-mantled church tower is most picturesque, no one will deny; but there is another side to the question. Ivy is undoubtedly harmful to old buildings, and when allowed to grow unchecked, young shoots work their way into the finest joints, of masonry, woodwork and

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Salvia uliginosa.—A fine perennial *Salvia* which has not yet found its way into many of our gardens is *S. uliginosa*. It thrives here in a damp but sunny spot. Its flowers, which are somewhat sparsely borne, and tall branching stems are of a beautiful azure blue. With me it grows to the height of 6 feet and more. Associated with the white *Anemone japonica* it makes a charming picture at the present time. Though a native of Brazil, it appears perfectly hardy in this part of England, and is in flower throughout August and September. It received an award of merit from the Royal Horticultural Society in September, 1913.—L. BIGG-WITHER, *Birdwood, Wells, Somerset*.

Storing Apples.—The note by Mr. E. H. Jenkins, issue September 9, page 439, is interesting

crop of fruit. The soil is a good loam for nearly one spade deep, after which it is clay. Bearing regularly, the growth of this variety is kept nicely balanced, and pruning is reduced to a minimum. Primarily known as a cooking Apple, it also makes a good eating variety soon after gathering. I do not think this latter quality of Pott's Seedling is realised by gardeners in general; probably it has never been given such a thought because of the quantity of other eating sorts to hand at the time. To the tree illustrated belongs the credit of having produced fruits good enough to win four first prizes at the Royal Horticultural Society's Autumn Fruit Show.—C. T., *Highgate*.

Scentless Musk.—In reference to the paragraphs in the last two issues of *THE GARDEN* respecting the loss of scent in the common Musk (*Mimulus moschatus*), various reasons have been given from time to time, but apparently nothing definite has been propounded. One eminent professor

After a large number of enquiries, and those of friends on my behalf who travel and who have been on the look-out for me, I have had to abandon the idea of being able to get the true variety; but should there be a reader of your interesting paper who knows for certain that he has a really scented Musk, he would confer a great favour if he would kindly send me a small plant or pieces of roots.—A. G. N. LAUNDER, 23, *Holmeewood Road, Brixton Hill, London, S.W.*

Scented-Leaved Plants in the Greenhouse.—In addition to the several scented-leaved-subjects named on page 438, issue September 9, the following may also be included: The Pineapple-scented Sage (*Salvia rutilans*), whose fragrance is very pleasing when the foliage is slightly agitated, but if the leaves are at all bruised it is superseded by a stronger and less pleasant smell. The scarlet flowers in winter are also a pleasing feature of this *Salvia*. Under the name of *Dracocephalum canariense*, but now known as *Cedronella triphylla*, is the plant popularly termed the Balm of Gilead. This is a very old occupant of our gardens, and in my young days was exceedingly popular for greenhouse culture, but it is now very rarely seen. It belongs to the Labiate family, is a plant of easy growth, and the leaves have a very pleasing perfume. The various scents possessed by the fragrant-leaved *Pelargoniums* render them of especial interest, not the least remarkable being the manner in which they mimic other and quite different classes of plants. Some years ago I obtained from Italy, under the varietal name of *Malonettii*, a very distinct form of the Lemon-scented *Verbena*. Instead of the refreshing Citron-like fragrance common to the ordinary form, the leaves of this had a pronounced smell of Peppermint.—H. P.

To Preserve Runner Beans.—"Anne Amateur" need never trouble to carry out Mme. Bophôte's recipe, in your last issue, for preserving French Beans beyond the words "till the crock is full" if, when she wishes to use them, she soaks them for twenty-four hours in water before cooking. I use mine all the winter, and they are neither salt nor tasteless, and remain quite green.—A. LA T.

—Pull the Beans from the plant; do not cut in any way. If you cut them up, you let the salt in too much, and consequently have to soak too long, with a corresponding deterioration of flavour. Place a layer of Beans and a layer of salt alternately in a clean crock or small cask till full, just adding day by day the quantity you may have at hand. All that is necessary while filling, or when your vessel is full, is to keep it covered from dust; it does not require to be air-tight. Look at the Beans from time to time, and if a layer of mildew forms, skim it off and put a fresh layer of salt on the top. The Beans underneath will be all right. When required for table, soak them till the salt is sufficiently eliminated; then slice and cook in the ordinary way. A bit of sugar in the water is a great improvement. Drain from the water and finish with a little cream or butter. For many years we have preserved Beans by the above very simple recipe, and I give it, as it seems to me so many people give themselves such a very great deal of needless trouble. Friends who have had the Beans when staying with us say they can hardly credit they are not freshly gathered. Peas in the pod can be done in the same way, but one has not always the receptacles at command, as they take a lot of room; shelled Peas also, but they absorb the salt more.—M. E. S.



APPLE POTT'S SEEDLING IN A LONDON GARDEN.

and true. It may be of interest also to mention that I constructed on the north-east side of my house a small lean-to of 14-inch cavity walls and a 6-inch concrete top, boarded underneath. Air bricks were used as top and bottom ventilators, with an arrangement for closing them when winter weather set in. In this house I stored my Apples in trays one on the top of the other, and they kept splendidly. For instance, we used the last of Bramley's Seedling during August, and then followed on with this year's crop of Lord Suffield. The last year's Apples were as firm and plump in August as when stored the previous October. The brick walls absorbed and returned the necessary moisture very satisfactorily.—J. J. BURTON, *Rosecroft, Nunthorpe, R.S.O., Yorks.*

Apple Pott's Seedling.—My experience of this Apple convinces me that it is a most valuable variety and worthy of inclusion in any collection, small or great. It does particularly well in this North London district, never failing to carry a

thought it was due to an over-abundance of moisture in the atmosphere, but this explanation does not quite satisfy me. I am inclined to think that the raising of stock from seed instead of increasing it by division of a true scented variety has had something to do with the apparent elimination of scent. But still, there must be plants of the true old variety to be found somewhere, and most likely in country villages. During the last five or six years I have had plants sent me from different parts of the country, and some of the advertisers have described those plants as scented; but in every case, after keeping the plants for a season or two, the scent described has not been noticeable by me. The most striking case was where a private grower very kindly sent me roots from stock he had grown for over twenty-five years, which certainly ought to have been the old scented kind, yet, although I grew those plants indoors as well as outdoors in the sun and in the shade, the plants were quite scentless.

Californian Tree Poppies.—Your notes on pages 425 and 430, issue September 2, should be read by everyone who has a garden. I cannot understand why these shrubs are so seldom seen in small gardens. I bought mine from one of your advertisers at the price of bush Roses, and have had, in the case of trichocalyx species, a much earlier return for the outlay than from any purchase of Roses. Here (Radlett, Herts) a *Romneya trichocalyx* had about a dozen blooms the first summer and at least fifty the second season. I find from my record that it blooms from the middle of July to the middle of October, and for ten months of the year there is the charm of the beautiful grey leaves and stems. R. Coulteri, I find, starts blooming about three weeks later, finishes earlier, and is "shy." Its stems are less sturdy and the foliage less grey than those of trichocalyx. In my opinion it has only one point of superiority over the other species, and that is its delicious fragrance, with which I can compare no other flower. I hope Mr. Fletcher's hybrid has combined the fragrance of the one with the floriferousness of the other. From three failures I get the impression that any manure sickens these shrubs, and that they prefer poor but porous soil. Most of the old wood survives the winter here, but as I have never had flowers from it, I shall in future cut it right down to the ground after the new shoots appear. Each flower lasts about a week, and "goes to sleep" at night most daintily.—C. H. A.

Mother Nature and Father Florist.—In continuation of my note last week (page 438), perhaps the most perfect example of the flowers I desire are Shirley Poppies. For these, all true garden-lovers owe an unending debt of gratitude to the Rev. W. Wilks. Many are the benisons I have breathed on him for evolving them ever since my delighted eyes first beheld them in the Mill garden at Polegate many, ah! many, a long year ago.—ANNE AMATEUR.

Toads.—I caught a toad a few days ago and carried him home to see if he would help to destroy slugs, with which my garden swarms. I placed a white one before him, and immediately it moved (of course, toads will eat nothing which does not move) he ate it. I fear, however, he did not like it, for I could not get him to repeat the experiment.—A. H. P.

—Perhaps the Editor will kindly permit me to make one more reference to the toad. A few days after the first note on toads eating Strawberries appeared in THE GARDEN, my little boy found one in the garden and threw a lot of dry ashes on it. Before the ashes were thrown, the toad was bulky; after, it seemed to shrink to half its size. I admonished and took my boy away.

Near by I had a tub, three parts filled with manure-water, 2 feet 3 inches from the ground, near the end of a frame the top of which nearly touched the rim of the tub, and several boards rested in a slanting position against the brick frame. The following morning I found the toad swimming about in the manure-water in the tub. He could get in, but not out again. Query: Did the toad take this bath voluntarily to get rid of the ashes?—G. GARNER. [These letters were submitted to Miss Marion Black-Hawkins, Gosterwood Farm, Ockley, near Dorking, who has made a great study of toads, and from whom we have received

loss of the water, naturally, causes a considerable diminution in their size, and possibly the toad in question may have tried to get rid of the ashes in this way, which, if so, would account for the decrease in its size when seen afterwards. Toads absorb water easily through the surface of the skin, and a toad which has not been near water for some time will generally, if placed in a vessel of water, increase to nearly double its bulk in quite a short space of time. Doubtless when they have emptied the internal reservoir of water they take the first opportunity of replenishing the supply; but I wonder how your correspondent

knew it was the same toad that he found in the tub the next morning. I should have done more than merely 'admonish' the small boy if I had caught him throwing ashes on a toad!"—ED.]

Antirrhinums on Walls.—As a correspondent recently pointed out, these flowers are very adaptable, for both in fiercely hot and fairly shady positions they will flourish and yield a brilliant harvest. As might be expected, however, shade rather tends to sappy and unduly gross growth, while the flowering is delayed and perhaps a little curtailed also. Their one great bugbear is superfluity of moisture. Given a dry position they will thrive and flower year after year. I have at home plants of *Coccinea*, growing close to a Privet hedge, which have been perfectly happy for four seasons. In the border, however, where there is greater moisture, stem rot is prone to attack the plants, while never once has a plant withstood the winter. However, as showing how independent is the Antirrhinum of water, I may mention that in the part of Northants where I am stationed Antirrhinums grow with amazing freedom on brick and stone walls. Walls of some height abutting on the roadside are covered with them, while I have noted strong plants growing from the top and sides of garden walls and even stable-yard walls. Presumably it is not so much a question of limestone—brick walls are freely covered—but more concerned with atmospheric conditions. I note that Chickweed, grass and other weeds flourish likewise with moss on the walls, and even on top of the ridges of thatched



SNAPDRAGONS CLOTHING A DRY WALL.

the following reply: "Many thanks for so kindly sending me the two notes about toads, in which I was interested, particularly in the account of the toad which ate one of the little white slugs, as I never could induce any of mine to do so; but some naturalists have stated that they do, though the evidence on the point seems scarce and unreliable. I imagine it only happens very occasionally, and then probably by mistake. With reference to the other letter, all toads possess an internal reservoir of water, which they can discharge at will through the skin, so that the whole surface of the body runs with water. The

cottages. I arrived here in time to see the plants flowering, obviously they are not all seedlings of the current season. In my home garden, attempts to grow Antirrhinums similarly would fail.—T. A. W.

FORTHCOMING EVENTS

September 19.—National Rose Society's Autumn Show, at the Royal Horticultural Society's Hall, Vincent Square, Westminster.

September 21.—Manchester and North of England Orchid Society's Exhibition.

THE ROSE SEASON IN SOUTHERN SCOTLAND

BY THE REV. DAVID R. WILLIAMSON.

ATMOSPHERIC influences have of late greatly favoured the growth and flowering capabilities of Roses, with the result that there is every appearance of a highly successful autumnal bloom. Yesterday afternoon I had the privilege of visiting the extensive and beautiful gardens of Logan House, which are picturesquely situated in the northern district of Kirkmaiden, and found the Roses perfectly covered with flower-buds, which only require a continuance of fine and genial weather to complete their floral development. Such modern varieties as Rayon d'Or, Mme. Edouard Herriot, Lady Hillingdon and Climbing Souvenir de Pierre Notting are more effective in those gardens than I have ever seen them anywhere else, and that is saying much.

In my own garden M. Pernet-Ducher's Constance, which is somewhat fuller in central petals, and perhaps also more floriferous than its brilliant predecessor, Rayon d'Or; Totote Gelos, an exquisitely white and orange tinted variety; Admiral Ward, Willowmere and the justly famous Lyon Rose have been quite luxuriant in their bloom, and greatly admired by many visitors during the last two months.

Other Roses of recent introduction that have flowered with great artistic effectiveness during that period of fruition have been Mr. Arthur

William Paul's Imogen and Titania, which for absolute perfection of formation and colour could not easily be excelled; Mr. Hugh Dickson's Gorgeous, a uniquely coloured and most attractive Hybrid Tea; Mrs. Bertram J. Walker, Mrs. George Gordon and Mrs. Hugh Dickson, regarding the great merits of the last mentioned of which notable creations I have recently had an interesting correspondence with an enthusiastic Buckinghamshire cultivator, who is especially interested in Mrs. Hugh Dickson.

I quite coincide with those writers in THE GARDEN who have recently vindicated the splendid and abiding attributes of Mrs. Wemyss Quinn, which I highly eulogised in this journal last year as one of Mr. Alexander Dickson's finest productions of the Pernétiana description; and I cannot doubt that by his Margaret Dickson Hamill his great reputation will be equally sustained, especially in the light of its recent remarkable success at the metropolitan exhibitions. Another exquisitely effective Rose is Mr. Samuel McGredy's Iona Herdman, whose brilliant colour makes it a veritable acquisition. Mrs. Franklin Dennison is also a variety of great beauty; porcelain white with a delicate suffusion of pale primrose yellow.

Among the older and more familiar Roses that have flowered profusely in our gardens this season are such enduring varieties as Bouquet d'Or, Mme. Alfred Carrière, Rêve d'Or, Margaret Dickson (now somewhat superseded by the more modern "Snow Queen") and the fragrant Souvenir de S. A. Prince. Very conspicuous among the crimson varieties have been George Dickson, Captain Hayward and General Macarthur.

CAMASSIA LEICHTLINII

CAMASSIAS make capital border flowers for the summer, although their comparatively short blooming period is a defect we are a little unwilling to admit. This depends much upon the quantity of moisture at the roots and the amount of shade the plants receive during the warmest times of the day. As a rule, a fairly moist place and a



ROSE MRS. BERTRAM J. WALKER.

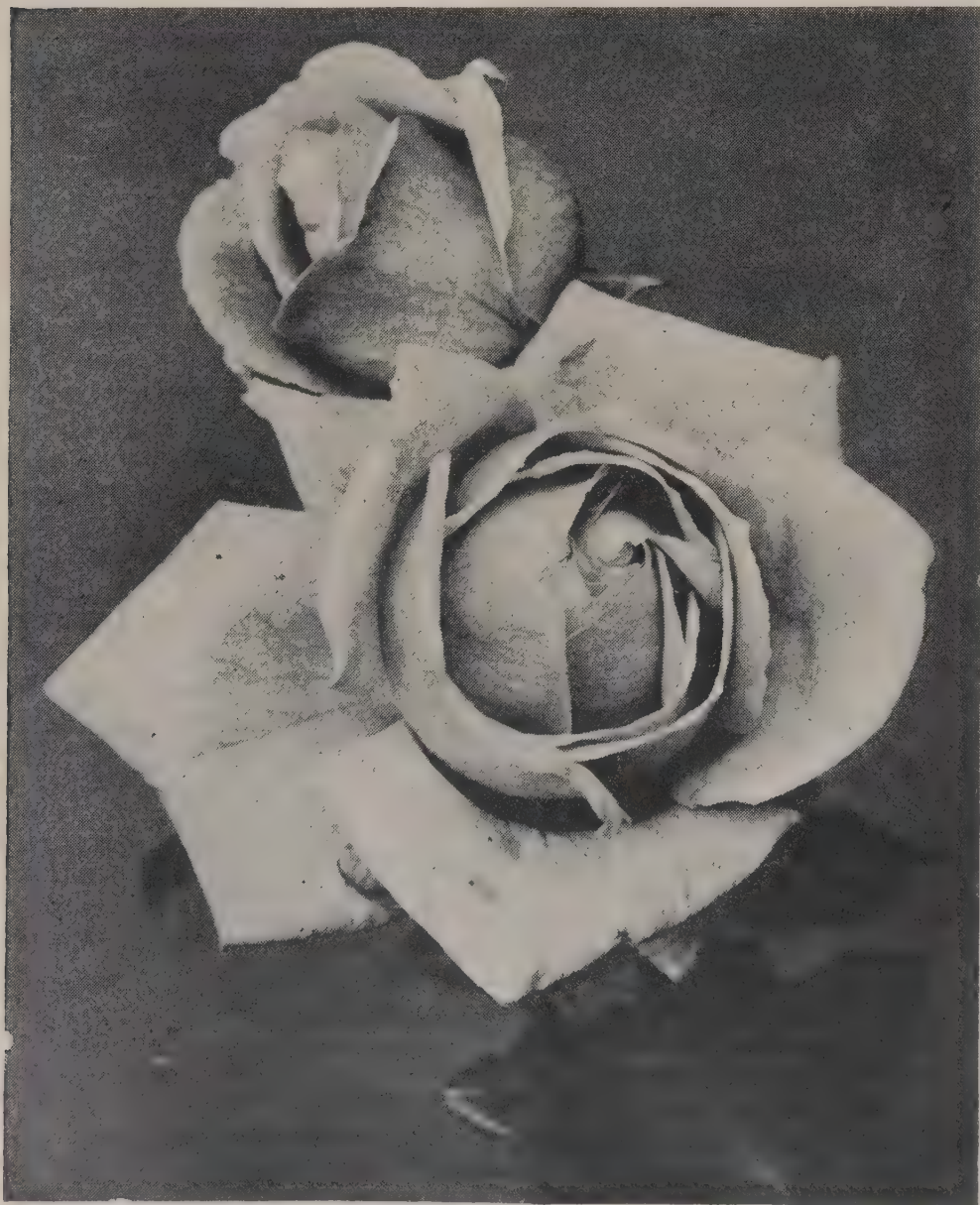
little shade prolong the duration of the flowers considerably, and if the bulbs are planted about 4 inches or 6 inches deep they are likely to do well. Camassia Leichtlinii, which grows about 3 feet or 4 feet high, is a good species with creamy white flowers. The colour is hardly pure enough to place it on the highest plane of beauty, but from this there have been raised some varieties, either hybrids of C. Leichtlinii with other Quamashes, or seedlings of this species, probably the former. These have handsome flowers, ranging in colour from pure white through light blue and lilac to purple. They should be bought early in the autumn and planted in good soil as soon as they are procured. S. A.

BORDER CARNATIONS

BY J. L. GIBSON.

ACORRESPONDENT asks me to draw attention to the success attending the showing of bizarres, flakes and white ground Picotees in their natural condition at the recent Carnation Show at Vincent Square. These are usually displayed on cards, and, as my correspondent very correctly says, it is a step in the right direction to have classes in which those particular flowers can be shown as grown. The blooms were in many cases particularly fine, and the prizes well competed for. I heartily agree that the dressing, and incidental maltreatment, of flowers for exhibition on boards and cards is unnatural and stupid, and the very idea seems to me barbaric and at variance with the finer instincts of flower lovers.

The same writer, who, by the way, is a well-known exhibitor, makes some very interesting remarks regarding a number of the varieties mentioned in my last notes. Being particularly strong on Picotees, he gives them place of honour in his criticism. Margaret Lennox, he declares, is, for growth, habit, and freedom of flowering, quite apart from its value for show purposes, the finest yellow ground Picotee at present grown, and does better in the open border than any he



ROSE GORGEOUS, SOFT PINK, SUFFUSED ORANGE.

has ever tried. This is high praise, but, though my knowledge of Picotees is not extensive, I consider it well deserved. It would be interesting to know if Mr. Douglas considered it better than Mrs. J. J. Keen for all purposes.

I would like to put in a word on my own account for the light-edged John Ruskin, whose habit of growth and lovely flowers are all that the ordinary grower can desire.

My correspondent's experience of the new Picotees Queenie and Professor Burstall is interesting and not too satisfactory. The former he describes as more of an apricot than a clear yellow ground, and the latter rapidly loses its ground colour, and is condemned as a bad burster unless the side buds are allowed to develop. This is a serious fault, and anent that I might have been led to thoughts of an ironical pun, but refrain on account of my high regard for the erudite and clever gentleman whose name the flower bears, and whom I once had the pleasure of meeting a good many years ago in Birmingham. In any case, both of these Picotees make good exhibition blooms if caught just right, and they will doubtless be grown till something better takes their places.

Cheam is dismissed as "too small for vase classes, but perhaps worth keeping for those who dress." Eclipse is to come again, according to this grower. He recommends growing it in soil not too much enriched with manure. As regards Zena Dare, he agrees with me that it is poor—washy, he calls it.

Having so much in common thus far with my critic, I must now throw down the glove. Among the newer Carnations, he lays a heavy hand on both Lord Kitchener and Othello. He says they are both "unclean," and of the two, Othello the more so. Now, I know very well what is in his mind. His type of a clean flower is Daisy Walker and The Bride, by virtue of their pure white ground, very lightly touched with colour. But why should more colour make a flower unclean? Perhaps the acme of purity in a flower is the Poet's Narcissus. The small scarlet crown sets off the pure white petals to perfection, nor does it mar the sweetness of the whole any more than do the dainty scarlet bars on the pure petals of Daisy Walker. But when the art of the hybridiser transformed a Poeticus into a Barri by enlarging the crown of the Narcissus to three times its natural size, the flower was not then condemned as unclean, but rather hailed as a new type of beauty. No one would say that either Othello or Lord Kitchener were so pure in petal as the whiter flower; they are different types, and there is a beauty of dainty girlhood as well as a beauty of the warrior, or, if you like, of the thunderstorm. I have an opportunity of illustrating the variety Othello here, so that the reader may judge for himself of its quality.

Personally, I accept it as a welcome addition to the white ground fancies, and judge it to be a flower of high merit.

Fair Ellen and Mrs. W. P. Owen come under the same stigma of "dulness." For some reason or other I missed the latter from my order of last autumn, and Fair Ellen is only being sent out this year, but I have seen both flowers, and my friend on the front opposition bench must have a hypersensitive discrimination in colour schemes to wring dulness out of these two beauties. Mrs. Owen has always given me the impression of sweetness and delicacy, and the newer variety certainly has a magnificent petal of the purest white with the daintiest flicks of lavender markings. This, indeed, will be one of the most popular of all Carnations. The last flower



OTHELLO, A NEW TYPE AMONG BORDER CARNATIONS.

to be mentioned in the letter I am dealing with is Grey Douglas, and here my friend opens his heart somewhat. He describes it as a flower which will make its mark, and says it is the biggest and best of the colour yet introduced. This fine new heliotrope has been introduced only to our visions as yet, for there is not stock enough to justify its sale till next year, but the house of Edenside will still further enhance its name when it does appear.

Another notable novelty is My Clove, also from Mr. Douglas. As shown at Vincent Square the scent seemed even more powerful than that of Bookham Clove, and its colour is a beautiful pink, sometimes suffused slightly with lavender or heliotrope. Other new varieties I would rather write about when I know them more intimately.

DAHLIAS

COLLARETTE, PÆONY-FLOWERED AND DECORATIVE.

IT was my good pleasure in the closing days of August to pay a visit to the garden of Mr. J. A. Jarrett at Anerley, near to the Crystal Palace, where between nine hundred and a thousand plants of the Collarette, Pæony-flowered and Decorative Dahlias are grown. This successful grower has planned his beds and borders in such a fashion that the plants are seen at their best. Plants of the respective sections of Dahlia are grouped in an imposing manner, and only the better and newer kinds are grown. A long serpentine path runs through a considerable length of the garden, and on both sides of the pathway are planted either Decorative or Pæony-flowered sorts, in bold groups, edged in front with some of the Mignon Dahlias. These dwarf bedding Dahlias are especially well adapted for edgings to beds and borders, as they have a compact, close habit and produce blossoms in profusion. It may be well at this juncture to mention the names of a few of these dwarf, single-flowered sorts. Lancer is a glorious scarlet; Agnes, a distinct purple; Daphne, a maroon sort with a good habit; Olive, a beautiful orange; Little Othello, deep crimson; and others, all very attractive.

The Decorative Dahlias seem to embrace a variety of forms, all valuable as garden plants and mostly profusely flowered. Some of the flowers are very large; others, however, are comparatively small, with an abundant display of blossoms of dainty form and beautiful tones of colour. Generally speaking, the plants range from about 3 feet in height to quite 5 feet, and they are bushy withal. Plants of varieties that were especially noteworthy were represented by Kaiserin A. Victoria, white; Papa Charmet, deep crimson; Delice, rose pink; Alice Roosevelt, white, shaded mauve; Jeanne Charmet, lilac pink; Souvenir de G. Douzon, orange red; Queen Mary, rose pink; Duffryn, pure white; Amphion, pink, shaded heliotrope; Mrs. James Lang, crimson scarlet; Princess Juliana, creamy white; and the chaste and refined Madonna, a beautiful white. All of the foregoing are giant-flowered kinds, and as such are highly valued for their garden display.

Great progress has to be recorded in the Pæony-flowered section, and many quite remarkable flowers were to be seen in this fine collection. These plants were also grouped on either side of the long serpentine pathway, and on the occasion of the writer's visit, notwithstanding heavy storms, the plants were doing remarkably well. Noteworthy specimens were Geisha, scarlet and yellow; Liberty, soft scarlet; Sheila, pale pink;

Bayard, orange scarlet, yellow base; Eleanor, rose pink; Balak, rosy crimson; Beethoven, amber; John Green, yellow and scarlet; Mrs. J. C. Vaughan, yellow; Lord Milner, yellow, suffused crimson; Dormouse, deep crimson; Aphrodite, white; Amber Queen, amber; and others, such as Hortwite and Meyerbeer.

Lower down the garden there was a series of long beds and borders devoted exclusively to the Collarette type of the flower. Here were to be seen all the newest and best as well as the better of the older varieties, and these made a most attractive display. In addition there were beds and borders devoted to seedling Collarette Dahlias, a section with which Mr. Jarrett has been very successful. There were several very promising seedlings, of which the Dahlia-loving public will hear more later on. A few good Collarettes of Mr. Jarrett's raising are Rainbow, of varied hues and very beautiful; Biscuit, a biscuit-coloured flower; Alfred Dennis, deep chestnut maroon; and Anerley Gem, of which variety there was a large number of plants in the pink of condition. Varieties that Mr. Jarrett pins his faith to are the following: Henri Farman, yellow, blotched red, cream collar; Tuskar, rosy crimson, tipped white; Gold Tip, scarlet, with gold tips and gold collar; Carron, bright scarlet, tipped gold, collar golden; Eden, pure white; Mme. Poirer, bluish violet, white collar; Countess Icy Hardegg, maroon, tipped white, collar white; Abbé Hugonnard, purple, margined white, collar white; Holyrood, ruby, tipped gold, yellow collar; Star of Montplaisir, old rose, collar pale rose, edged white; Grandpapa Charmet, bright red, cream collar; Schwarzatal, deep rosy crimson, white collar; Scarlet Queen, scarlet, collar golden yellow; and Anna Louise, rose on buff ground, and the collar the same colour.

The new Star Dahlias were also well represented by Crawley Star, clear rose pink; White Star, pure white, with yellow centre; Worth Star, old rose, with white bars down the centre of the florets; and Yellow Star, soft primrose yellow.

On the occasion of the writer's visit Mr. Jarrett was entertaining a party from the Robert Browning Settlement, Walworth Road, S.E., to whom he had given much encouragement earlier in the year, and the members of which party were highly delighted with all they saw. D. B. C.

THALICTRUM DIPTEROCARPUM

This is one of the prettiest flowers of the garden in September. Its violet flowers, with pale sulphur-coloured stamens on sprays 6 feet or more in length, provide a very pleasing and graceful effect.

The leaf character resembles that of *T. aquilegifolium*, and this, together with its elegant, though somewhat vigorous habit of growth, makes it a delightful plant in every way. Not particular as to soil, it requires an open, sunny position, and, like most other *Thalictrums* or Meadow Rues, is an admirable subject for naturalising.

FLAG IRISES

BY GEORGE YELD.

MR. R. W. WALLACE'S article on Flag Irises (issue August 12, pages 394 and 395) tempts me, as one who has spent many years in the cultivation and raising of Irises, to offer a few remarks. I am in thorough sympathy with Mr. Wallace's loyalty to the late Sir Michael

Observatory dinner-hour, so I dined at Shelford! We did not, of course, spend the whole time on Irises. One of Sir Michael's special studies was that of the Alpine Dianthi, and I was much pleased to be able later on to collect for him in the mountains of Cogne one of the best forms of *Dianthus neglectus*. It can easily be imagined that I went away from Shelford with a greatly increased enthusiasm for Irises.

I remember very well receiving from Shelford I. Amas. As soon as I saw it I recognised that it would be a great aid to the hybridist, and proceeded to use it. A cross between it and *Cypriana* gave me a very large and tall Iris which I named Arac, after the giant in Tennyson's "Princess." Iris Trojana (syn. *asiatica*) gave us, as Mr. Wallace says, another means of improving our Flag Irises.

By the way, there is an error in the names of the Irises illustrated on page 394. The plant labelled Neptune should be Lady Foster, and that shown as Lady Foster should be Neptune. Lady Foster has beautiful flowers. I should describe it as a more desirable plant than Caterina, another of Sir Michael Foster's seedlings, which gained an award of merit. Edouard Michel deserves what Mr. Wallace says of it. Prosper Laugier is an undoubted improvement on the old *Jacquini*ana. I agree with Mr. Wallace that Irises "are undergoing a period of great development, and the next few years will show a still greater interest in these fine garden plants." Early in May last I had

the pleasure of going over Kilnfield Gardens. Mr. Wallace kindly accompanied me, and I learnt much about the newest Irises as well as about many other families of hardy plants. The Intermediate Irises were in fine bloom, and many of them were new to me. My garden space is limited and I have no room for a collection of them, but they are well worth attention. Naturally, we devoted most of the time to the Flag Irises, many new varieties of which I examined; and when you have studied a family of plants for many years, they are almost as interesting when out of flower as when in blossom. Iris bracteata, since honoured with an award of merit by the Royal Horticultural Society, much attracted me. No Iris garden is now complete without the

THALICTRUM

DIPTEROCARPUM.

(Slightly reduced.)

Foster, to whom all lovers of the Iris family owe a deep debt of gratitude. I shall never forget the first day I spent in his garden at Shelford. I was at the time staying at the Observatory at Cambridge, and duly provided with an introduction from the late John Couch Adams, the famous astronomer, I reached Shelford soon after ten o'clock in the morning. We spent the time till lunch in examining some of the garden's many treasures, went back after lunch, had a brief interval for tea, and then returned to the flowers. When we gave up it was past the

new Chinese varieties *Chrysographes*, *Forrestii*, *Wilsoni* and *Bulleyana*, all belonging to the grassy-leaved *Sibirica* group. The yellow *Wilsoni* is particularly free in my garden. I should like, in conclusion, to recommend the yellow-flowered variety of *I. foetidissima*, the flowers of which are a great improvement on the dull slate-coloured blooms of the ordinary *foetidissima*. I found it growing in the so-called Temple of Serapis at Pozzuoli (Puteoli) and at Naples, from where I imported it. It grows and flowers freely.



TENDER SHRUBS ON NORTH WALLS

ONE of the commonest mistakes in gardening is to presume that plants coming from a warmer climate require all the sun and warmth of a south wall when grown in an English garden. Times out of number this has proved a fallacy in actual experience, and still 90 per cent. of gardening books continue to recommend plants for south and west walls that give far better results in a north or north-east aspect.

A plant which is considered one of the tenderest of all climbing shrubs is the *Lapageria*. It is a native of Chile and is usually grown in the greenhouse or conservatory for its rose-coloured, pendulous flowers. Many attempts have been made to grow this climber in the open on a south wall without success. And yet in the same gardens the *Lapageria* is being grown satisfactorily in a north aspect, and the plants flower freely in autumn and early winter.

In December last the Right Hon. Lewis Harcourt, writing from Nuneham Park, Oxford, in *THE GARDEN*, says: "I have several *Lapagerias*, some of them 10 feet high, growing well on north walls. They have been in flower already for several weeks, and will continue so until after Christmas. The white variety is included as well as the red, but seems less vigorous. In planting, a little peat was mixed with the natural soil (which is green-sand). I find that they do not do well on a south exposure." And Oxford is not a warm place, on the other hand, it is said to be one of the coldest places in England by those who have lived there.

The blue *Passion Flower* (*Passiflora cærulea*) and *Solanum jasminoides*, both natives of Southern Brazil, are other climbers that succeed best on a north or north-east wall, and what may appear more remarkable is that they continue to flower even after the frosts of early winter. That *Solanum jasminoides* is not the delicate climber it is supposed to be may be gathered from the illustration of a well-clothed doorway in Mr. Philip Ashworth's garden in Cheshire. The two plants here shown are seven years old, and only slightly protected by matting during the winter.

Of all the climbing plants for a north wall, few have given greater pleasure than *Actinidia chinensis*, which is extremely beautiful in foliage and trailing growth.

H. C.

THE PERENNIAL SUNFLOWERS IN GARDEN AND WOODLAND

DURING the later September days and through early October the perennial Sunflowers wave their stems in the wind and create beautiful pictures when groups are formed with the blues of the Starworts in association. I have seen them

lighting up in autumn with the wonderful golden yellow colouring of the flowers. They are of the simplest culture, but on warm and light soils especially the roots must be lifted once in every four years at least; after this the growth becomes too close, the stems short and the flowers dwindle in size. Last autumn I lifted the *Helianthus*es, as they were in the condition described, and now



SOLANUM JASMINOIDES GROWING OVER A GARDEN DOORWAY.

planted among shrubs with the happiest results, and made to give clouds of colour in openings in the woodland itself, such places in which should be more often seen the Moon Daisy, that flower of the moon, a tall, willowy *Pyrethrum*, or *Chrysanthemum uliginosum* as it is known to the botanist. I have masses of the *Helianthus*es in the border and any rough corner which wants

they are once again revealing their true character, giving bountifully, for tall vases in the house, of their leafy, flower-crowned stems. All the kinds have yellow flowers of various shades. Perhaps the most gorgeous of all is called Miss Mellish, and though its roots have a somewhat unpleasant habit of rambling, this may be checked by dividing them once in three years. C.

STAPELIAS, OR CARRION FLOWERS

IN the *Kew Bulletin* for 1903, page 17, is an interesting article on the ecology of Stapelias by Mrs. M. E. Barber, the well-known artist and African botanist. According to this lady, in spite of their extraordinary power to adapt themselves to the varying and uncertain climate, these plants appear to be rapidly disappearing from all parts of South Africa. She says: "Civilisation and colonisation are both dead against them. They are eaten up by 'all kinds and conditions' of cattle. For instance, if an ostrich finds a Stapelia plant, he seldom leaves without taking nearly the whole of it with him. Cattle, sheep and goats, in like manner, feed upon them greedily. The native tribes during years of severe drought and famine use these plants as food, and native children delight in their sweet, young succulent branches. The florist and gardener go hand-in-hand with the rest in the work of destruction, for you will hear them exclaiming, 'Oh! here is one of those curious Stapelias,' and it will speedily be pulled up and planted in some flower-bed, where, for want of care, it will be overgrown by other plants and lost."

There are many species, one of the most typical being *S. variegata*, sometimes called *S. bufonia*, which has flowers of leathery substance and coloured yellow with dark brown spots. Other well-known species are *S. deflexa*, *gigantea*, *mutabilis*, *revoluta*, *patula* and *picta*.

HOW TO GROW ONIONS FOR KEEPING

ALMOST every cottager and allotment holder has an Onion-bed in their gardens, and it is surprising what a small number of them know how to grow Onions as they should be grown. In the first place, the ground should be as level as possible and in good heart. During the autumn or early winter the ground should be well manured with half-decayed manure, and either trenched or dug as deeply as possible and left in a rough state. Nothing can now be done until about the first week in March, when the ground should be forked over and left for two or three days. When moderately dry it should be well trodden down. In a few days it ought to again be well forked over, and after a few more days it should be trodden two or three times. It is then ready to receive the seed.

The best method of sowing Onion seed after the ground has been prepared as above is to stretch a line the length of the ground, and then procure a long, straight pole and lay it alongside the line, treading on it with the feet so that it is pressed about half its width into the soil. Continue this along each row till the whole of the bed is completed, arranging the rows about 10 inches or 12 inches apart.

Now the use of the pole becomes apparent: all the seed will be the same depth and resting on firm soil. Sow the seed thinly and evenly, afterwards raking the whole bed level with the back

of a rake. Go over the ground three or four times and tread it with the feet, or a roller if available, leaving the bed level and firm. At the end of each row a small stick should be placed.

Onion seed takes about four or five weeks to germinate in the early spring, and nothing should be done to the bed, except weeding, until the Onions are ready for lifting. Never on any account touch the Onion-bed with a hoe; neither should one of the Onions be taken out of the bed, as it is the hoeing and thinning that loosens the soil and lets in the Onion fly to deposit its eggs at the end of May or early June. If the ground is well trodden and raked level, the land will settle as hard as the road, and no trouble with the Onion fly will be caused.

About the first week in September the Onions will begin to turn brown and ripen. It is a good plan when the stalks begin to turn over to arrange



STAPELIA VARIEGATA, A TYPICAL CARRION FLOWER.
(One-half natural size.)

them in one direction, which can be done with the back of a rake. This allows the sun and air to ripen them off.

The best method of drying after they are lifted is to place them on a sack on a gravel path in full view of the sun. Never allow the Onions to become wet after they are lifted. It usually takes about a week or ten days to dry them off thoroughly.

After they are ready for storing, sort them over, placing the largest ones in one section, the smaller ones in another. Use the largest first and the smaller ones last, and they will keep until the following June. If the Onions are required for keeping, put nothing on them in the way of artificials during their growing period. Even soot is not required. Do not be alarmed if the bulbs look thick in the bed; as Onions have a way of making room for themselves by pushing their neighbours out of the rows.

C. F. ADAMS.

NOTES ON VEGETABLES

Onions.—No time should be lost in sowing seed of any Tripoli or Italian variety. Lemon Rocca and White Leviathan are both good for giving bulbs early in the year. Some sow the seed in beds and plant out the seedlings afterwards, but I prefer to sow where the plants are to remain, as finer bulbs are obtained with a minimum of labour. The ground should be deeply dug and moderately manured. Further stimulants can be given, if necessary, as growth proceeds. Too rich a soil is a cause of premature bolting. Draw drills 14 inches apart and sow the seed thinly. If the soil is dry at the time, well water the drills before sowing, as germination of the seed is much quicker with a moist base than when the soil is excessively dry.

Cabbage.—The earliest-raised plants will be ready for transplanting into rows 18 inches apart. The plants of such small-growing varieties as Harbinger or Ellam's Early can be put out 9 inches apart; this will allow of every other plant being taken out quite early, thus allowing space for those remaining to grow to a full size. This method of planting is economical and satisfactory. Should the weather be dry at planting-time, either draw drills 2 inches deep and thoroughly soak them before planting, or make a puddle with soil and soot, dipping the roots in this preparatory to planting. If there is danger of slug attacks, sprinkle finely sifted coal-ashes around the plants.

French Beans.—As the nights lengthen and become colder, the plants growing in frames will need protection to ensure them perfecting a full crop. The latest batch in the open should be assisted with copious supplies of water at the roots, should the weather be dry.

Cardoons.—Continue the blanching as fast as possible by the aid of haybands and soil as growth proceeds.

Endive.—Sow seed on a warm border for providing plants for winter and a spring supply. Those growing in Celery trenches should be blanched as required by tying up the leaves so that the centre will be covered, allowing sufficient space for the young leaves in the centre to expand. From 3 inches to 4 inches are required to blanch thoroughly.

Tomatoes.—To have ripe fruits early in the spring, a sowing should now be made in heat, potting off the plants when large enough to handle. Grow them close to the glass in a temperature not less than 60° by night, remove all side growth, and shorten the leaves on fruiting plants with a view to concentrating the whole energy of the plant into the ripening of the fruits. Liberally feed with liquid manure those plants carrying heavy crops. To ease these heavily laden plants, remove the ripening fruits, which will finish satisfactorily in a warm, dry room.

Turnips.—Make the last sowing of Snowball or Prizetaker in well-watered drills, on a south border if possible, to ensure a quick growth.

Celery.—Continue the earthing up of the late batch of plants as growth progresses. The latest planting should be well soaked with water, and plants which are weakly or stunted should have weak liquid manure to hasten their growth.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

Strawberries.—Continue to cut away runners as they appear, and keep the beds hoed and free from weeds. This will assist the crowns to mature. Plantations which have fruited this season and are required for next year may be mulched with farmyard manure. A dusting of soot will also be beneficial.

The Kitchen Garden.

Parsley.—If a cold frame is available, it can be filled with Parsley to furnish a supply during the winter months. Lift the plants with plenty of soil, and after planting give a thorough watering. Keep the lights off until frost is expected, as it is essential to promote sturdy growth and thus prevent any damping off.

Potatoes.—Maincrop varieties should be lifted directly they are fit, selecting fine, dry weather

of the compost. For a week or two spray the foliage twice daily, and keep the lights off until the second week in October.

Liliums.—These are always admired, and the present is a suitable time to plant all the hardier kinds in the open border. The bulbs should be planted about 6 inches deep, and a little peat and sand placed around each bulb. Clumps of each variety are more effective than a few isolated examples. *Lilium sulphureum* and *L. Henryi* succeed well in this district.

Fruit Under Glass.

Cucumbers.—Growth is now less rampant, and the plants should have all badly shaped fruits removed directly they appear. Cut out useless leaves and pinch each shoot at the second joint to prevent overcrowding. The trellis should be furnished with short-jointed growth. Top-dress the bed at intervals, and tepid water must be

Preparatory to giving the first earthing, the small basal leaves and any offsets should be picked off, carefully tying up the retained leaves so that the soil during the earthing process may not find its way into the hearts of the plants. The earlier batch, in which brown paper is employed for blanching, will be benefited by copious supplies of moisture, adding extra rings of paper as growth proceeds.

Lettuce.—Prick out plants of approved varieties in cold frames to ensure a supply during the winter. Sow seed of Standwell, Hammersmith or Stanstead Park (Cabbage varieties), or Champion Brown or Black-seeded Bath (Cos varieties) to provide plants for putting out in early spring. Well water any plants approaching the hearting stage, sprinkling them overhead every evening. This is time well spent. The leaves when grown rapidly are much more crisp and succulent.

Mushrooms.—Prepare manure for an inside bed in a shed or cellar by collecting fresh horse-manure, among which should be some short strawy manure, which assists fermentation and tends to keep the whole sweet. To economise the manure, a quarter of the bulk may be freshly gathered leaves, or those collected last spring will suffice for the early beds. An open, airy shed is a suitable place in which to prepare the material, which should lie from 2 feet to 3 feet deep. Turn it over every morning for about ten days to allow noxious gases to escape, thoroughly mixing it when turning. As the heat declines in the manure, the bed should be made up not less than 15 inches thick, firmly beating down the manure to ensure its being quite evenly firm, so that it will retain its heat longer and more evenly after spawning.

Radishes.—Make a last sowing in the open of French Breakfast, which is not excelled for quick growth and tenderness of flesh. I need hardly say this latter attribute is mainly the result of attention in supplying water regularly during their growth, should the weather be dry.

Swanmore.

E. MOLYNEUX.

TWO ATTRACTIVE HOLLYHOCKS

Two very fine Hollyhocks have been in flower for several weeks past in Kew Gardens, one near the Victoria Gate, named Palling Belle, and the other named Countryside, near the Hardy Fernery. The former is a very pretty pink, and the flowers are fully 5 inches across, while the other is a very dark red with rather smaller flowers. Both are double-flowered forms, in each case a dense, rosette-like, central mass of small petals being surrounded by a circle of large ones. However, both varieties can be raised true to type from seeds. Such being the case, they are very valuable decorative plants, for in addition to being very beautiful they are strong in habit, the flower-spikes rising to 10 feet high. Speaking generally double flowers are less graceful than singles, but the double Hollyhock, unlike double Foxgloves, Campanulas and many others, does not appear at all out of place, while they retain their beauty over a much longer period. When space permits, single and double Hollyhocks should both be grown.



THE DOUBLE PINK HOLLYHOCK PALLING BELLE, STILL FLOWERING AT KEW.

for the work. If disease is present, early lifting is recommended, and care must be taken not to store any infected tubers, or the disease will very likely spread. The tubers should be quite dry when stored.

Turnips.—As the seed has germinated freely and the fly not been troublesome, the seedlings must be thinned at the first opportunity. It is not necessary to thin too severely, as a few roots will be required for the kitchen directly they are large enough. Another sowing may be made on any spare piece of ground.

The Flower Garden.

Violets.—Give the beds a thorough soaking of water, and proceed the day after to remove the plants to the pits and frames where they will bloom. The bottom of the frames should be filled with stable manure or leaves, and then covered with 8 inches or 10 inches of soil. This ought not to be rich, and it should contain a percentage of partially decayed leaf-mould. Lift the roots with plenty of soil, and remove all the dead leaves and runners. Make the plants tolerably firm, and give enough water to wet the whole

employed for watering purposes. Maintain a night temperature of 70°, and ventilate sufficiently to keep a sweet, healthy atmosphere.

Plants Under Glass.

Bulbs.—The bulk of the bulbs for forcing should now be potted up. A large number of varieties is not desirable. They are much more useful from the decorative point of view when a moderate batch of one kind is grown. Two good Tulips are Prince of Austria and Proserpine; while the Narcissi could be represented by Paper-White, Golden Spur, Emperor, Sir Watkin and Barri conspicuus, and Hyacinths by a pure white, pink and blue. Five-inch and 6-inch pots prove convenient receptacles; but for the Narcissi with large bulbs, like Sir Watkin, 7-inch pots may be necessary. When the repotting is completed, cover the pots with well-seasoned ashes to a depth of several inches. Here they may remain until roots are formed.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Endive.—Where this salad is required for winter use, a frame should be prepared for transplanting it, selecting plants from the open border that are about half grown. The drainage must be good, or moisture will settle about the leaves and cause them to rot. Keep the frame well ventilated on fine days, and when the plants are large enough for use, the foliage should be tied together so that a good part of it gets blanched.

Fruit Under Glass.

Strawberries.—The plants in preparation for forcing should now be filling the pots with roots, and will be benefited by occasional applications of liquid manure. A dusting of soot given during showery weather is also advised. Any runners that may appear should be cut off and the plants given plenty of room, so that air and sunshine are freely admitted. The plants, of course, will have to be placed in cold frames before severe frost occurs. The pots should be plunged slightly over their rims in freshly gathered leaves, using a shallow frame so that the crowns of the plants may be quite near the glass. The frames must be freely ventilated daily, except during hard frost or snowy weather. Previous to plunging, the frames should have a fresh coating of coal-ashes and a heavy sprinkling of soot, which will prevent the entry of worms into the pots.

Plants Under Glass.

Callas.—Plants which were divided and planted out should now be ready for potting up. The pots must be large enough to allow of a fair quantity of good loam and leaf-mould being added in the potting. After potting, a good soaking of water may be given and the plants placed in a cool pit. The heat may be regulated according to the time the flowers are required. Keep green fly in check by fumigating, and syringe the plants overhead occasionally on bright days.

Housing Plants.—Preparations should now be made for accommodating indoors such plants as Cyclamen, Primulas and Cinerarias which have been growing in cold frames. It is not advisable, however, to house the Cinerarias or Calceolarias too early if the weather is favourable. These should be left as long as possible, unless the frames are required for other purposes. Give the plants more room to avoid damping of the foliage or attacks of mildew, and fumigate to prevent green fly making headway.

Wallflowers.—The double varieties of these popular flowers are useful for conservatory decoration in spring. If the seedlings were pricked out when ready, they should now be fit for transferring to pots. Five-inch or 6-inch pots will give ample room for development. They should be potted moderately firm in a mixture of loam, leaf-mould and sand, and placed in a sheltered, shady place outdoors for a time. Afterwards remove them to a sunnier position, where they may remain until frost sets in, when they should be placed in a cool, airy house until ready for the greenhouse or conservatory.

Calanthes.—As soon as these begin to show that growth has stopped for the season, applications of liquid manure should be discontinued and clear water given sparingly. Trim off the foliage as it decays and keep the house somewhat drier, with a free circulation of air and genial warmth in the pipes.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

POTATO EPICURE

ONE more season has proved the value of this early Potato for market work. In Bishop's Waltham, where Potatoes are in great demand, growers have increased the acreage of this variety considerably. The haulm is short, thus requiring a minimum of space. I know of no variety that comes so quickly to hand in the open and without any special site or attention as this, and which gives a huge crop of saleable tubers early in July, at which time this year they made as much as £25 per ton.

E. M.

TRIAL OF MIDSEASON
CULINARY PEAS

THE following awards have been made to mid-season culinary Peas by the Council of the Royal Horticultural Society after trial at Wisley:

FIRST MIDSEASON VARIETIES.

Awards of Merit.—Clipper, sent and introduced by Robert Sydenham, Limited. Danby Stratagem, raised, introduced and sent by Messrs. J. Carter and Co.; A.M., 1901; award confirmed. Duke of Albany Selected, introduced and sent by Messrs. Sutton and Sons; A.M., 1901; award confirmed. Duke of Albany Re-selected, introduced and sent by Messrs. J. Carter and Co.; A.M., 1901; award confirmed. Evergreen Delicatsesse, raised, introduced and sent by Messrs. J. Carter and Co.; A.M., 1908; award confirmed. Harvestman, raised, introduced and sent by Messrs. J. Carter and Co.; A.M., 1908; award confirmed. Improved Queen, raised, introduced and sent by Messrs. J. Carter and Co. International, raised, introduced and sent by Messrs. J. Carter and Co.; A.M., 1908; award confirmed. Jersey Hero, sent by Messrs. Nutting and Sons. Magnum Bonum Selected, sent by Messrs. Barr and Sons; A.M., 1910; award confirmed. Market Gardener, raised, introduced and sent by Messrs. J. Carter and Co. Market King, raised, introduced and sent by Messrs. J. Carter and Co. Prince of Peas, raised, introduced and sent by Messrs. Sutton; A.M., 1910; award confirmed. Quite Content, raised by Mr. E. Beckett, introduced by Messrs. J. Carter and Co., and sent by Messrs. Barr and Sons and Messrs. J. Carter and Co.; F.C.C., 1906. Royal Salute, raised, introduced and sent by Messrs. Alex. Dickson and Sons. Standard, raised by Messrs. Sharpe and Co., and sent by Messrs. Barr and Sons; A.M., 1900; award confirmed. The Newby, raised and sent by Messrs. Hurst and Son.

Highly Commended.—Best of All, sent by Robert Sydenham, Limited. Buttercup, raised, introduced and sent by Messrs. J. Carter and Co. Centenary, raised, introduced and sent by Messrs. Sutton; A.M., 1901. Daisy, raised and introduced by Messrs. J. Carter and Co., and sent by Messrs. W. H. Simpson and Sons. Favourite, raised, introduced and sent by Messrs. Sutton. Gradus, sent by Messrs. W. H. Simpson and Sons; F.C.C., 1887. King George, raised, introduced and sent by Messrs. E. Webb and Sons. Model Telephone, raised, introduced and sent by Messrs. J. Carter and Co. Peerless, raised, introduced and sent by Messrs. Sutton; F.C.C., 1903. Red Cross, raised, introduced and sent by Mr. W. Sim. Reliance Marrowfat, raised, introduced and sent by Messrs. E. Webb and Sons. Stratagem, raised, introduced and sent by Messrs. J. Carter and Co.; F.C.C., 1882.

SECOND MIDSEASON VARIETIES.

Awards of Merit.—Continuity, raised, introduced and sent by Messrs. Sutton; A.M., 1898; award confirmed. Glory of Devon, introduced by Messrs. R. Veitch and Sons, and sent by Messrs. Barr and Sons; A.M., 1899; award confirmed. Masterpiece, raised, introduced and sent by Messrs. Sutton; A.M., 1913; award confirmed. Matchless, raised, introduced and sent by Messrs. Sutton; A.M., 1911; award confirmed. Perpetual, raised, introduced and sent by Messrs. Sutton. Satisfaction, raised, introduced and sent by Messrs. Sutton; A.M., 1910; award confirmed.

Highly Commended.—The Victor, raised by Mr. W. R. Porter, introduced and sent by Messrs. W. W. Johnson and Sons.

Commended.—Alderman, sent by Messrs. W. H. Simpson and Sons; F.C.C., 1900. Best of All, raised, introduced and sent by Messrs. Sutton. Commonwealth, raised, introduced and sent by Messrs. J. Carter and Co. Discovery, raised, introduced and sent by Messrs. Sutton. Incomparable, raised, introduced and sent by Messrs. Sutton. Magnificent, raised by Mr. H. Eckford, and sent by Messrs. Barr and Sons; F.C.C., 1884. Ne Plus Ultra, sent by Robert Sydenham, Limited. Paragon, raised, introduced and sent by Messrs. Dickson and Robinson. Prizewinner, raised, introduced and sent by Messrs. Sutton; F.C.C., 1901. The V.C., raised, introduced and sent by Messrs. Sutton. Up-to-Date, raised, introduced and sent by Messrs. Sutton. William Richardson, raised by Mr. William Richardson, introduced by Messrs. J. Backhouse and Son, and sent by Messrs. Nutting and Sons, Limited.

LEGAL POINT

I HAVE been a member for about sixteen years of the allotment association of which I enclose card and rules, and when I was elected there was a full committee, with treasurer, secretary and president. Since that night there has not been a general meeting called, and all the committee have either left or died, and no one has been elected in their places. There has been no balance-sheet or books audited, and of the committee and officials left there is only the treasurer. But the late secretary and treasurer put a person on with themselves without election. The secretary has since died and there are only the treasurer and the co-opted member, who has taken the secretary's place, and they will not let us know how we stand as regards finance nor issue any balance-sheet nor have anyone as a committee, and they say they will not do so. Now, because one member went to see the agent, they have given him notice to leave his allotment without asking any other member, and they say he has done nothing wrong and broken no rule. He has paid his rent in advance and cultivates his garden. What I want to ask is this: Can these two men give him notice, and is he bound to accept it when other members wish him to stay because he tills his garden, which one of these two men does not? What is our position? The man who is the treasurer has broken Rule 7 by allowing his sons to use his greenhouse for gambling, which is forbidden. The member to whom they have given notice put nearly 3 tons of manure on his ground only this spring. Is the member, if he has to quit, entitled to compensation for manure besides vegetables, which he will not be able to gather, seeing they have given him notice to quit in December, although he has paid his rent up to March next?

CONSTANT READER.

[The "Rules" are the vaguest we have yet come across. No provision is made therein for the method by which the governing body (committee) is to be elected or how any of the officials are to be appointed. Neither is there any provision for the holding of an annual meeting or for the keeping of accounts or presentation of same to the members of the garden allotments. "Constant Reader" should explain to other members the position of affairs and prevail on

them to join him in summoning a meeting of the allotment holders. They should invite some influential man to take the chair at the meeting, who should explain the unsatisfactory position and point out the necessity of putting matters on a proper basis. Rules should be drawn up providing for holding an annual meeting, election of committee, presentation of accounts and passing of same, election of officials, &c. In the event of this suggestion being acted on, No. 13 of the present "Rules" should not be included in the new ones, as it is wickedly unjust to members. Assuming we have all the documents bearing on this matter before us, we are of opinion that no committee exists competent to give the notice necessary to discontinue a tenancy, and the member who "went to see the agent" (is he the landlord's?) should defy "the committee," who, even if properly constituted, are only able to give six calendar months' notice previous to January 1, and are not empowered to take any further steps.—Ed.]

EDITORIAL NOTICES

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

Offices: 20, Tavistock Street, Covent Garden, W.C.

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

MAKING A FLOWER-BED (G. N.).—The first thing to do will be to excavate all gravel and other hard material that may have been used in making the path, and, having disposed of it, turn your attention to forming the bed. If the size of the path and its form are in conformity with your idea of the flower-bed, it will suffice for ordinary purposes if the area be excavated to a depth of 18 inches, the bottom well forked up, and new soil installed to replace that removed. If there is need of modification or extension beyond the limit of the present path, this could be readily adapted to meet your requirements. In the case of clayey or retentive soils, some provision for drainage would be necessary, 6 inches or more of rough material being first placed in. In light or gravelly subsoils this would not be needed. Had you stated the nature of the soil and the particular class of flower you desired to grow, we could have given more definite assistance. For example, the soil depth named would be insufficient for Roses, and a soil of a special nature would be desirable. If for use as an ordinary flower-bed, common garden soil with well-decayed stable manure and leaf-mould would do quite well.

TREES AND SHRUBS.

PRUNING SHRUBS (M. M. K. C.).—*Polygonum baldschuanicum*, *Ceanothus Gloire de Versailles* and *Rignonia radicans* may all be cut back in February, cutting the previous year's wood back to within an eye or two of the base. Two good strong-growing autumn-flowering Clematises are *Mme. Edouard André* (red) and *Snow White* (white). A good China Rose to use as you suggest would be *Mme. Eugène Résal*.

SHRUB FOR NAME AND TREATMENT (J. D.).—The specimen sent for determination is *Pittosporum tenuifolium*, sometimes called *P. nigricans*. It is a native of New Zealand, and can be procured from Messrs. V. N. Gauntlett and Co., Limited, Japanese Nurseries, Chiddingfold, Surrey. It can be increased by seeds sown as soon as ripe in light soil indoors, or by cuttings of half-ripe shoots inserted in pots of sandy soil in a close and slightly warm frame during July or August.

ROSE GARDEN.

ROSES BADLY MILDEWED (Mrs. K.).—We advise you to cut away and burn the mildewed growths that are so badly affected. You are sure to have some mildew at this season of the year, and we fear it is not easy to eradicate now. You should continue spraying with some good fungicide, or give the plants a good dredging with black sulphur. The *Gypsophila* is a difficult plant to divide, as it makes one large root like a Parsnip. Young plants are so cheap that it does not seem worth while spoiling a fine plant, as you would do if you attempted to divide it.

THE GREENHOUSE.

PLANTS FOR A GREENHOUSE (B. V. Y.).—If a temperature of 50° to 60° is maintained in your greenhouse, there are many subjects that will flower therein during the winter months. It is, however, essential that they be prepared beforehand for the purpose, and unless you have other facilities for growing them, we are afraid that your winter display will be a limited one. At all events, for this season's show you must obtain plants that are nearly approaching the flowering stage. Another item is that in spring the house will be required for vegetable seedlings, so that, unless you have another house, the stock plants of many things on which you might depend for the next year's display will have to be done away with. Zonal Pelargoniums that have been well exposed out of doors during the summer will flower well in the temperature named, and among other subjects that can be recommended for winter blooming besides those mentioned by you are *Cyclamens*, *Erlangea tomentosa*, *Linum trigynum*, *Carnations*, *Begonias* of sorts, *Chrysanthemums*, *Bouvardias*, *Salvias*, *Eupatoriums* of sorts, and *Lindenbergia grandiflora*. Wallflowers potted up now and carefully attended to will under glass anticipate their usual season of blooming. Suitable decorative Ferns for such a structure would include *Adiantum cuneatum*, *A. decorum*, *Nephrolepis* of sorts, many kinds of *Pteris*, especially *P. serrulata*, *P. cretica* and *P. tremula*, with their several varieties; *Cyrtomium falcatum*, *Polypodium aureum* and *Asplenium bulbiferum*. In any future questions please write on one side of the paper only.

LOAM FOR POTTING AND OTHER QUESTIONS (J. D. B.).—There is no need to use different loams for the potting of the plants named. There is plenty of good loam to be met with in different parts of the country, and a very superior quality can be obtained from the various dealers who make a speciality thereof. It can also be supplied by horticultural sundriesmen. This good class loam is usually of a rather holding nature, and contains a fair amount of fibre. For such plants as Palms it may be used almost by itself, with the addition of a little sand, or, if it is of a somewhat heavy consistency, a little leaf-mould may be beneficial. For Ferns a rather lighter compost is desirable, in which case more leaf-mould or peat and sand may be mixed with it. In establishments where large and varied collections of plants are grown, only one class of loam is used, the other ingredients being added in proportion to the class of plants for which the compost is needed. 2. You do not say whether the ants have their nests in the Palm pots or just visit the Palms, attracted by the scale thereon. If the nests are in the pots, they should have been done away with when the plants were repotted; but if still present, soak the balls of earth for twenty-four hours in water. If they simply come after the scale, wash these pests off with a solution of soft soap and water. Then trace the ants to their nests, which are not likely to be at any great distance, and destroy them by pouring boiling water therein. 3. The white fly is one of the most troublesome of insect pests, and exceedingly difficult to get rid of. It may be destroyed by hydrocyanic gas, but this is too dangerous to human beings to be recommended. Vaporising with nicotine will kill the perfect insects, but the eggs are not affected thereby. Only persistence in vaporising every two or three days until the pests are got rid of is likely to meet with any success. Tomatoes are particularly liable to be infested with it.

FRUIT GARDEN.

CORDON PEACH TREES (Tim).—The summer laterals on the leading shoot you mention should be cut back close to their base. They hinder the ripening of the wood of the shoot and are of no use. At the winter pruning you should cut back this leading shoot to within a foot

of its base; side shoots will form as a consequence next spring. Let each of these be stopped at the fifth leaf, and any subsequent shoots which may spring from these stopped shoots must be stopped at the third leaf. This is for the purpose of compelling the formation of fruit-spurs. The leading upright shoot should be allowed to grow without interruption throughout the summer as before, and be again pruned in winter as above. The writer is obliged by your kind appreciation of his previous reply to your question, and regrets he cannot invite you to see the trees under his charge, as he has been living in retirement for some years.

MISCELLANEOUS.

NAME OF FRUIT.—*Borris*—Apple Pott's Seedling.

NAME OF PLANT.—*G. L.*—Probably a *Dolichos* species; cannot identify in this condition.

OBITUARY

GAVIN PRENTICE.

THE death took place the other day of Mr. Gavin Prentice, who was for the long period of thirty-eight years the superintendent of the Glasgow Green Park of the City of Glasgow. Mr. Prentice retired about eight years ago, and was seventy-seven years of age at his death. During his term many improvements were effected on Glasgow Green, and Mr. Prentice carried these through, under the direction of Mr. James Whitton, V.M.H., the Superintendent of Parks, in an admirable way. We tender our sympathy to Mrs. Prentice and family.

THOMAS FRASER.

WE have to record the death on September 1, at the age of seventy-seven, of Mr. Thomas Fraser, for about forty years in business as a nurseryman and seedsman in Dumfries, and a highly respected man. Coming to Dumfries from Broughton, Peeblesshire, where he had been head-gardener at Rahan House, he began business in English Street, Dumfries, and soon acquired a good connection, which he retained until his retirement about five years ago. A competent and conscientious judge, Mr. Fraser was in considerable request in this capacity at shows, and he took an active though unassuming part in several public bodies. He was for some time a member of Dumfries Landward School Board and Dumfries Parish Council. While at Broughton he was appointed an elder of the Established Church of Scotland, and held a similar position in St. Michael's Church, Dumfries, up to the time of his death. He was predeceased by Mrs. Fraser, whose sudden death about three years ago told upon his failing health, and for some time it was evident that his end was not far distant. The funeral, on September 6, was largely attended.

SOCIETIES

DUNFERMLINE GARDEN COMPETITION.

THE results of the annual competition for prizes offered by the Carnegie Dunfermline Trust for gardens in Dunfermline have now been published. Prizes are offered for gardens of various sizes, window-boxes, &c., and a sum of about £70 is allocated for the purpose by the trustees. We can only give a few of the principal classes, but it may be said that these competitions have done much to promote horticulture in Dunfermline, and that the gardens entered this year were, as a rule, well cultivated and arranged and full of excellent produce. The following are the results: Flower garden, not exceeding two falls of ground—First, Mr. W. Morris; second, Mr. P. Anderson; third, Mr. D. Wilson. Flower garden, not exceeding one fall of ground—First, Mr. D. Adamson; second, Mr. R. Wright; third, Mr. W. Smith. Garden of flowers, fruit, or vegetables, arranged in best taste and kept in best order—First, Mr. J. Reid; second, Mr. H. Anderson; third, Mr. D. McKechnie.

ROYAL HORTICULTURAL SOCIETY.

IN conjunction with the ordinary fortnightly meeting held on the 12th inst., the National Dahlia Society's meeting was associated, the twain being responsible for an attractive display. The Dahlia, indeed, in its many forms was everywhere, and generally well shown. Apart from this, a collection of fruit from Tilgate, Sussex, demonstrated high cultural excellence, the Grapes being particularly well shown. Orchids, too, were nicely presented, together with some important novelties. These with seasonable hardy flowers and a beautiful lot of Carnations from Wivelsfield made together quite a good and representative exhibition.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. W. J. Bean, J. Hudson, G. Reuthe, J. Green, G. Harrow, J. W. Moorman, B. Crisp, C. R. Fielder, T. Stevenson, J. Heal, W. Howe, J. Dickson, C. Dixon, H. Cowley, C. E. Shea, H. J. Jones, E. H. Jenkins, G. Paul, E. Mawley, W. P. Thomson, R. Hooper Pearson and C. E. Pearson.

Mr. G. Reuthe, Keston, Kent, showed many interesting hardy plants, both alpine and shrubs. Of these latter, the choicest example was *Rhododendron primulinum*, a new Chinese species and a charming plant with *l. l.* *Abelia chinensis* was also good. *Colletia cruciata*, full of white, fragrant bells; *Clethra alnifolia*, white, very sweet-scented; *Gaultheria nummulariaefolia* and *Desfontainia spinosa* were also included. Among alpine, *Gentiana calycosa*, a trailing species akin to *G. septemfida*, was very beautiful. *Astilbe simplicifolia* and *Micromeria croatica*, with a variety of hardy Heaths, were all nicely shown. *Ceratostigma plumbaginoides*; *Stobaea purpurea*, a rarely seen Thistle-like plant; and *Malva alcea*, with rose pink flowers, were also noted. *Cyclamen neapolitanum* (*hederifolium*) in variety was also on view. The finest thing in the group was *Eucryphia cordifolia*, several handsome bunches of the pure white flowers being staged. *Berberidopsis corallina* was also good. *Clethra arborea* was noteworthy.

Mr. W. Wells, jun., Merstham, staged a particularly showy group of Delphiniums, the spikes as good as those of summer-time. The chief varieties shown were Rev. E. Lascelles, W. Wells (sky blue), Mrs. H. Kaye (dark purple), King of Delphiniums, La Danube, Cossack and Lizzie (light blue). Some eighteen varieties were staged. *Senecio pulcher* was grandly shown. *Verbesina Purpusii*, a golden-flowered Composite from Mexico, was very good, as was also *Aster King George*.

The Rev. J. H. Pemberton, Havering, Romford, showed his lovely new cluster Roses in capital form—Moonlight (white, semi-double), Callisto (soft yellow, with apricot-tinted buds), Daræ (cream and yellow) and Clytemnestra (more pinky than usual and withal more beautiful). Daybreak is of charming appearance, with yellowish buds and creamy flowers; it is very beautiful.

The Misses Hopkins, Shepperton-on-Thames, showed a variety of alpine in flower, notably *Sedum pulchellum*, which is very pretty.

Messrs. Allwood Brothers, Hayward's Heath, showed well-grown Carnations, staging them nicely on a groundwork of velvet. Mary Allwood was particularly good and showy. British Triumph, Salmon Enchantress, Brilliant (nicely scented), White May Day, Wivelsfield White (probably the best white extant), Bishton Wonder (lovely pink, with glorious Old Clove perfume), Champion and Benora were among the best in a nice clean lot.

Messrs. H. B. May and Sons, Edmonton, staged a nice lot of greenhouse Ferns, their variety and freshness attracting at a glance. *Nephrolepis* were in strong force, such as *gracillimum*, *Whitmaniana compacta* (a very beautiful form) and *Marshallii* being among the best of these. *Cheilanthes elegans*, *Adiantum Veitchii*, *Davallia Mooreana* and *Asplenium marginatum* were others of note and distinction. Shrubby *Veronicas* were in considerable variety. *Admiration* (blue), *Lavinia* (violet), *La Perle* (reddish) and *Mont Blanc* were noted.

Mr. H. Close, Orpington, showed a collection of branching Asters, also others of the Ray and Comet sections.

Messrs. Carter Page and Co., London Wall, showed a delightful lot of Violas. Maggie Mott, Moseley Perfection (golden), Archie Grant, Kittie Bell (mauve), W. H. Woodgate (one of the best blues), Crimson Bedder and Peace (white) were among the best. Others of the cornuta set in white and purple were shown.

FRUIT AND VEGETABLE COMMITTEE.

Present: J. Cheal, Esq. (chairman), and Messrs. W. Bates, Edwin Beckett, G. Kelf, W. Pope, P. C. M. Veitch, E. A. Bunyard, H. Somers Rivers, W. Poupart, W. Wilks, A. R. Allan, A. W. Metcalfe, H. Markham and Owen Thomas.

J. A. Nix, Esq., Tilgate, Crawley, Sussex (gardener, Mr. E. Neal), showed some excellent fruit, particularly good Grapes being included. Of these, Gros Maroc, Muscat Hamburg, Muscat of Alexandria, Black Hamburg and Appley Towers were all finely coloured. Nectarine and Prince of Wales Peaches and Pincapple and Victoria Nectarines were very fine. A splendid tray of Duroseau Pears was also on view.

Messrs. Sutton and Sons, Reading, showed several dishes of their new strain of Tomato Best of All, whose chief attribute is that of a shorter-jointed plant, which provides a much heavier crop upon plants of medium size. Uniform colour and firmness of flesh were also notable qualities.

Messrs. S. Spooner and Sons, Hounslow, showed a collection of Apples in good condition. Lady Sudeley was very brilliant in colour: so, too, was Worcester Pearmain. Cox's Pomona, Golden Spire, Red Hawthorn-

den, Pott's Seedling, Rougemont, Wealthy, Ben's Red, Stirling Castle and Norfolk Beauty were others of merit in a large group. Bullaces, Damsons and Crabs were on view, also the Strawberry-Raspberry.

ORCHID COMMITTEE.

Present: Sir Jeremiah Colman (chairman), Sir Harry J. Veitch, and Messrs. J. O'Brien, Gurney Wilson, W. Bolton, W. H. White, S. W. Flory, A. Dye, Charles H. Curtis, J. Charlesworth, E. R. Ashton, Walter Cobb, Pantia Ralli, T. Armstrong, R. Thwaites, Stuart Low, R. A. Rolfe, F. J. Hanbury, A. McBean and W. H. Hatcher.

Messrs. Sander and Sons, St. Albans, showed the lovely *Cattleya* Lord Rothschild; C. Iris; C. Acis, reddish purple and bronze; C. R. Prowe, chaste and pure white; and *Laelio-Cattleya* Henry Greenwood, distinct in its long, narrow sepals, brilliant crimson purple lip, and snow white throat. *Cattleya* Magali Sander, pure white, was also on view.

His Grace the Duke of Marlborough, Woodstock, sent an interesting series of *Cattleyas* and *Laelio-Cattleyas*, C. Weedon aurea being the most beautiful and distinct.

Messrs. Armstrong and Brown, Tunbridge Wells, showed the lovely white *Cattleya* Snowdon; C. *Clasiana* alba; C. Lord Rothschild albescens, whose lip is reddish, with mahogany and gold lines; and *Brasso-Cattleya* Mmc. Hye, which has most delicate mauve sepals and petals, with greenish white and paler mauve, fringed lip, a remarkable variety of very beautiful colouring. *Cattleya* Iris was particularly good and fine; a handsome plant was shown.

Messrs. J. and A. McBean, Cooksbridge, Sussex, showed the beautiful pure white *Dendrobium* Sanderæ, the lip lined with light purple. The erect pseudo-bulbs are 3 feet to 4 feet long, one carrying as many as fifty-six flowers. A cultural commendation was awarded it. D. Dearci (white) and *Odontioda* Charlesworthii, of intense crimson colour, were particularly good.

Messrs. Charlesworth and Co., Hayward's Heath, showed *Disa grandiflora* very finely, also the golden *Laelio-Cattleya* Thyone, *Cattleya* Venus, C. Gaskelliana alba (very fine), *Odontoglossum grande* and *Laelio-Cattleya* Appam among many others. Some good *Odontoglossums* were also on view.

NATIONAL DAHLIA SOCIETY'S SHOW.

Mr. S. Mortimer, Farnham, took first prize for twenty-four Show Dahlias, having Gloire de Lyon, Henry Walton, Brown Bess, Sunbeam and Tom Jones in a capital lot.

Messrs. William Treseder, Limited, Cardiff, were first for twelve fancy sorts, Dandy and Mrs. Sanders being very distinct.

For eighteen varieties of Cactus Dahlias, Messrs. J. Stredwick and Sons, St. Leonards, staged the best collection, Lieutenant W. L. Robinson, General Sir Douglas Haig, British Lion (bronze), Mrs. Margaret Stredwick (rosy pink, regarded as the Dahlia of the year) and Saffron being very fine. This firm also gained first prize for a collection of forty-eight varieties. They were the only exhibitors and staged an almost unique collection.

Messrs. J. Cheal and Sons, Crawley, took first prize for twelve vases of Garden Cactus Dahlias, White Ensign, Homer (maroon), Edith Carter, Sweet Briar and Rose Queen being some of those shown. Messrs. Cheal were also first for twenty-four singles, showing Leon (scarlet), Albatross, Winona (maroon), Miss Roberts (yellow), Kitty (cerise), Flora (bronze) and Bridesmaid (rosy fawn) excellently.

Mr. C. Turner, Slough, led for Pompon Dahlias, showing Douglas (maroon), Mary (soft yellow), Hecla (white), Glow (terra-cotta) and Queen of Whites in a good lot. Mr. Turner was also first in the Peony-flowered class, Aphrodite (pure white) being the finest variety shown.

Four entered for the Challenge Cup, value 75 guineas, presented by Reginald Cory, Esq., Messrs. Carter Page, London Wall, being adjudged the winners with an imposing lot of flowers, in which the Dahlia in all its phases was well represented. Collarette varieties were very fine, the varieties Doon and Tuskar notable among them. Aphrodite and Delice, Peony-flowered and Decorative respectively, were very handsome. Leo XIII. (golden yellow, Peony-flowered) and Phidias were others of merit. Messrs. Treseder and J. Cheal also exhibited in this class.

Messrs. J. Cheal and Sons, Crawley, took first prize for twelve varieties of Collarette Dahlias, the best being Jeane (crimson), Lucien (maroon), Colleen (white) and Admiral (maroon, with white collar). Mr. C. Turner was second, Theodora and Negro being two of the more distinct.

Mr. C. Turner, Slough, took first prize for six Decorative Dahlias, Loveliness (pink), Princess Juliana (white), Yellow Colosse and Ulysses (maroon) being very fine. Mr. J. A. Jarrett, Anerley, was second.

Mr. S. H. Cooper, Chippenham, led in the class for twenty-four blooms, show or fancy.

Mr. A. P. Ironside, The Hamlet, Chippenham, secured first prize for twelve varieties.

For six blooms, one variety, show or fancy, Mr. S. H. Cooper, Chippenham, was first with John Walker (a pure white sort), Mr. S. T. White, Eastleigh, being second with Esmonde (golden yellow).

Mr. J. T. West, Brentwood, showed a general collection of these flowers, making a centre of Warneford (a lovely white Decorative sort).

Reginald R. Cory, Esq., Duffryn, Cardiff (gardener, Mr. A. J. Cobb), filled a table at the western end of the hall with varieties raised at Duffryn, the whole forming an imposing array. Florence Cory, Malgherita (Peony-flowered), Tipperary (giant single), Doralice, Melilla (golden yellow, Peony-flowered), Pastel (single) and Sappho (Decorative single) were a few of the best.

Arranged with Pampas and other Grass, the group was highly effective.

Messrs. Dobbie and Co., Edinburgh, showed their new Collarette Dahlias Bonfire (brilliant scarlet) and Yellow Queen very finely.

GALLOWAY STATION GARDENS.

THE results of the annual inspection of the best-kept station gardens, &c., on the Portpatrick and Wigtownshire Joint Railways have been issued. The judges comment favourably upon the general excellence of the work performed and the taste and skill exhibited. They place the station gardens in the following order: Creetown, Glenluce, Millisle, New Galloway, Crossmichael, Gatehouse-of-Fleet, Parton, Kirkcubright, Stranraer, Newton Stewart, Castle Kennedy, Sorbie and Palmure.

HIGHCLIFFE GARDENERS' ASSOCIATION.

ON September 4 Messrs. H. G. Cox and J. Townshend, of the firm of Messrs. Sutton and Sons, Reading, gave an interesting and instructive lecture on "Greenhouse Flowering Plants from Seeds." The lecture was illustrated by coloured photographs shown on a screen. The following were the principal kinds of plants dealt with: Herbaceous *Calceolarias*, *Gloxinias*, *Streptocarpus*, and tuberous *Begonias*. The original type of pendulous-flowered *Gloxinia* was shown, also the intermediate and the erect-flowered. The chief points brought out in the lecture were that with care, seedlings could be flowered six months from the date of sowing the seeds. Seeds of herbaceous *Calceolarias* should be sown in June in a rich, sandy compost; those of *Gloxinias* in February in a light compost of fibrous loam with leaf-soil. The seeds of the *Streptocarpus* should be treated in a similar way. The tuberous *Begonia* was of great value on account of its perennial character. The most suitable compost was made up of equal parts of loam and peat, with sufficient silver sand or road grit added to render it all porous, and when the ingredients were mixed they should be just moist enough to hold together when squeezed in the hand. The young seedlings should be lightly shaded at first, for about a fortnight. Well-drained pots or pans must be used, and when the compost is placed in them it should be watered with boiling water, which will kill all seeds of weeds and insect pests in it. The seeds should be sown an hour afterwards. The weakly seedlings of *Begonias* often bore the best flowers, especially in the case of the double varieties. Many questions were put by the members and ably answered.

The chair was occupied by the Rev. F. Steele Gray, a vice-president, and both he and the lecturers received cordial votes of thanks at the close of the meeting.

The World's Wheat Crop, 1916.—From returns recently published by the International Statistical Institute it appears that the area under Wheat this year in Canada is 70 per cent., in the United States 8 per cent., and in India 3 per cent. above the average. Estimates of the Wheat crop from eight countries representing 41 per cent. of the world's crop put the yield at 1 per cent. below the average. The United States crop is estimated at 5 per cent. below, and the Canadian crop at 11 per cent. above, the average.

A Sale at Dumfries.—By a sale of fruit, vegetables and flowers held in Dumfries the other day, the Dumfries and District Horticultural Society has obtained upwards of £80 for war relief funds. This is the third sale of the kind organised by the society, and has been the most successful of the series. Upwards of £200 has been realised in this way. Provost Arnott, Maxwelltown, president, occupied the chair, and the sale was opened by Provost Macaulay, Dumfries.

CATALOGUES RECEIVED.

Messrs. Sutton and Sons, Reading: Bulbs, Messrs. Little and Ballantyne, Carlisle: Bulbs, Roses, Fruit Trees, &c. Messrs. D. Hay and Son, Montpelier Nurseries, Auckland, New Zealand: Fruit Trees, Ornamental Trees, Shrubs, Roses, &c. Messrs. E. P. Dixon and Sons, Limited, Hull: Bulbs.

The War Office notifies that from now onward all papers posted to any neutral European country will be stopped, except those sent by publishers and newsagents who have obtained special permission from the War Office. Such permission has been granted to THE GARDEN, and subscribers who send to friends in Denmark, Holland, Norway, Sweden, Switzerland, Spain, Portugal, Greece, and Roumania should order copies to be despatched by the Publisher from 20, Tavistock Street, Covent Garden, W.C.

* * * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

No. 2340.—Vol. LXXX.

SEPTEMBER 23, 1916.

NOTES OF THE WEEK

THE illustration, which makes a fitting picture for the opening page of our Bulb Number, was taken on the morning of the first day of the Midland Daffodil Society's Show at Birmingham very soon after the judges had finished their work. Unfortunately, Mr. Walter T. Ware and Mr. A. M. Wilson had to leave to catch trains, and are not included. Reading from left to right the names of those in the group are as follows: Standing—Messrs. Henry Backhouse, Peter R. Barr, E. C. Mudge, N. Y. Lower, Rev. T. Buncombe, C. Bourne, C. Lemesle Adams, T. Humphreys and T. Batson. Sitting—Mrs. Wilson, Mr. J. Mallender, Mr. J. D. Pearson and Miss Pope. In front on the floor—the Rev. J. Jacob.

The Red-hot Pokers or Torch Lilies.

—These handsome flowering plants provide a very welcome touch of warm colour in the borders in autumn. Masses or large groups in the pleasure ground borders and on the slopes by the lakeside are particularly effective. The hot, dry weather of late July and early August, followed by a spell of wet weather, has apparently suited the plants; nor has the rain harmed the flower-spikes, for they are now objects of great beauty, and promise to continue so for some time. Spring is the best time to plant Kniphofias and

to lift and divide the clumps to increase the stock. For general planting, Saundersii and nobilis are two of the best. Brilliant-coloured varieties for the border are Lord Roberts, Victor Lemoine and R. Wilson Kerr.

The Japanese Anemones.—These hardy perennials thrive in sunny and partially shaded positions, and are thus admirably suited for cultivation in town and suburban gardens, where many flower borders get little sunlight. For table decoration the flowers are valuable, lasting better if cut in the early morning and the stalks placed in water without delay. Though not quite so elegant to arrange, the semi-double sorts last rather longer than the blooms with a single row of petals. A

selection should include Alice, carmine rose; Lady Ardilaun, pure white, a double row of petals; Prince Heinrich, rosy crimson; Whirlwind, white, semi-double; elegans, soft rose; and Mont Rose, rose pink. March is a good time to lift and divide clumps of Japanese Anemones.

A New Chinese Sorbus.—Among the newer trees and shrubs introduced from China during recent years Pyrus (Sorbus) Vilmorini is distinct, and promises to be a useful addition to our pleasure grounds. Seeds collected in Western China by the French missionary Abbé Delavay were received by M. Maurice de Vilmorin in 1889, that gentleman sending the first plants to this country some five

there are many places in the South and West where it grows and blooms well, making a most beautiful picture during August and September. A native of China, it was introduced by Lord Macartney in 1793. Under the most favourable conditions it may attain a height of 15 feet or 20 feet, and it is easily distinguished by its greyish stems and dark green, glossy, evergreen leaves. The white flowers are 3 inches to 4 inches across, with a large central mass of golden stamens. They are very fragrant and borne over a considerable period. It is seen at its best when allowed to ramble over a wall, ruin or bush, and a number of pleasing semi-wild features

have been noted in the South of England. Further North it is worth trying, more especially against walls, for it may escape many winters without injury.

Naturalising Bulbs.

In the majority of gardens there are various nooks and corners where some kind of bulb would produce a pleasing effect during the spring months. When the bulbs are once planted they are very little trouble, and they also supply a wealth of bloom for cutting purposes. A few that may be planted at this season are the various forms of Daffodil, Crocus, Winter Aconite, May-flowering Tulip, Snowdrop and a host of others



JUDGES AT THE MIDLAND DAFFODIL SOCIETY'S SHOW AT BIRMINGHAM, 1916.

or six years later. With age Pyrus Vilmorini promises to form a large shrub or small tree eventually, perhaps, 18 feet or 20 feet high. It has elegant, attractive pinnate leaves, smaller than those of the common Sorbus. The white flowers, each a quarter of an inch in diameter, are borne freely during June in corymbs and the axils of the leaves towards the ends of the younger branches forming a pleasing inflorescence. At the present time the small tree which suggested this note is clothed with attractive, pale rosy red fruits.

The Macartney Rose.—It is unfortunate that this beautiful Rose is not hardier, so that it might be grown more widely than at present; but

that will occur to the observant grower.

Gathering and Storing Apples.—The Apple crops are poor this season, and every care should be taken to secure the fruit in good condition. Gathering should be done during fine, dry weather, and every individual fruit examined for flaws before being placed on the shelves. All damaged or bruised fruits should be kept by themselves for immediate use. The later varieties must be allowed to remain on the trees as long as possible. Gathering too early causes the fruits to shrivel.

**** Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.*

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Bottling Fruits.—We have gathered much valuable information from your most useful paper, both as regards the garden and house management. Can you help us further by letting us know why some fruits when bottled (particularly Green Gage Plums also Rhubarb) will persist in going to the top? We feel that there may be some way of overcoming this. If so, and you can tell us through *THE GARDEN*, we should be much obliged. The fruits are bottled in patent bottles, with glass stoppers, in a pan with straw, and screwed down when hot.—(Mrs.) S. MONTAGU BURROWS, *Norham House, Oxford.* [To this "Anne Amateur" replies: "I really ought to have mentioned in my instructions for fruit bottling that, however carefully the fruit is packed in the bottles, owing to a certain amount of evaporation in cooking, which cannot be precisely estimated, some of the bottles will want filling up with a little more fruit, so it is well to have an extra bottleful cooked with every lot, and fill all vacant spaces in the rest from this."—ED.]

Narcissi Grand Monarque and Soleil d'Or.—I would like to draw attention to the great merits of these two Polyanthus or Bunch-flowered Narcissi, for while both of them are largely grown for market, neither appears to be grown in gardens as much as they deserve to be. Grand Monarque, seen in the accompanying illustration, has, for the size of the flower, a large, broad white perianth, with a primrose yellow cup in the centre. Soleil d'Or has a golden perianth and a deep, brilliant orange cup. By early forcing both may be brought into bloom by January, although Soleil d'Or is invariably the first to flower. Little groups of these two Bunch-flowered Narcissi in the flower border are always a source of great pleasure in early spring.—WAYLAND.

Romneya Coulteri.—I have been much interested in the notes on *Romneya Coulteri* in recent issues, and am sending enclosed bits to ask you whether this is the usual attempt at a seed, and if it is the common form, or, as I cannot help thinking, a hybrid? The bush is a large one under a window, but not very tall; is two years old, and though forming buds last year they came to nothing. This year it flowered early in *July* (which is, of course, wrong) and only four or five of the many buds came to anything, but these flowers were magnificent, though *very* faintly scented, and only at night. Is this the case with all, or only hybrids, or can something be wrong with the situation—a south aspect in shade after 12 o'clock? The plant is beloved by small green caterpillars, and is too large a bush to pick over, so the leaves are spoilt.—A. LA T. [The specimen sent for identification is the ordinary *Romneya Coulteri*, and the rudimentary fruit was attached to the specimen. The position ought to suit the plant well, and it will probably bloom more freely another year. Some people cut this plant right down to the ground each spring and rely on strong sucker shoots for the following summer's flowers

Others let the old stems remain, and, as a rule, these bloom earlier from short side shoots than those plants that have been cut right down; the flowers, however, are often smaller than those borne by strong young shoots. Caterpillars often seriously injure the leaves of *Romneya Coulteri*. They are best removed by hand picking.—ED.]

Potato Epicure.—I was particularly interested in the reference made by "E. M." to this variety of Potato, because this is the first season I have grown *Epicure*. "E. M." praises it for being an early maturer, good cropper and a short-haulmed Potato. All these qualities I can endorse; but no mention was made of its eating property, and with this I have been greatly disappointed. It eats too moist and soapy; at least, my sample does. If this is a feature of this variety, I do not think it should be so largely grown,



THE BUNCH-FLOWERED NARCISSUS GRAND MONARQUE.

however bountiful it may be for commercial purposes. The majority of people prefer dry, floury Potatoes, and these are the varieties to recommend to the public. The soil in which mine were grown is deep, well drained and of a light nature.—C. T.

Roses Dorothy Perkins and Lady Gay.—On page 430 of *THE GARDEN*, issue September 2, there is an article entitled "A Pretty Rose Effect," and the writer, "W. D.," refers to the Roses round the parapet of the fountain pond in Kew Gardens as being "Dorothy Perkins." The garden authorities have labelled those on the south side "Lady Gay," and I should be glad to know who is right. Again, on page 431, "White Lady," in an article entitled "The Roses of August," refers to Lady Gay as a sport from Dorothy Perkins. I do not recollect having seen this mentioned before, and should be glad to know if that is correct. Certainly, if a

sport, it is not a very distinctive one, and it seems a pity that a Rose coming into cultivation after and so much like Dorothy Perkins should have been placed upon the market. I may say that in my experience Lady Gay comes into bloom rather earlier and is, if anything, rather deeper in colour than Dorothy Perkins; but the marked difference is in regard to freedom of blooming, and in profusion of bloom Dorothy Perkins shows a decided superiority.—H. [These two Roses are so much alike that one name should suffice. We learn that the Roses at Kew were propagated from a plant named Lady Gay but they are now called Dorothy Perkins, although the original label, which is still there, had escaped the notice of the writer of the article. Lady Gay was sent out by M. H. Walsh in 1905. We are not sure if it was a sport or a seedling, but it is so much like Dorothy Perkins that, in our opinion, it ought not to have been sent out under another name.—ED.]

Finocchio.—This Fennel, used as a vegetable in Italy, wintered in my garden and is now ripening its seed. Can any reader give cultural directions and say when it is ready for the table if the young plants are put out in March and it is treated as Celery? So far the "swollen joints" have not appeared, though blossoms have been pinched off. It would be a useful vegetable if obtainable in England by April, when I have eaten it in Italy; but nothing appears to be known here as to the mode of cooking.—H. S. BARTLEET. [In Florence where it is known as Finocchio, or Fenouil this vegetable is brought to the market in cartloads, and is a great favourite with workpeople there. It is grown in other parts of Italy as well, and also to a small extent in France. It slightly resembles Celery in shape and habit of growth, and the base swells to a large size when well grown. We find it succeeds best when sown in shallow drills about 18 inches apart and the plants thinned to a foot in the rows. It prefers rich, well-manured and deeply-worked soil, and when growing requires plenty of water. In about six weeks from sowing the seed the plants are ready for earthing up, and the side growths should be removed. The plants should be drawn up in the same way as for Celery. When the plants are sufficiently blanched, they can be used either boiled and served with sauce, or eaten raw as a salad. Finocchio has a rather aromatic

smell, and a sweet taste resembling aniseed. It can be lifted and stored in moist sand when necessary, as if left too long in the ground it will run to seed.—ED.]

Solanum jasminoides.—Here in South Hants this plant thrives amazingly. I have it growing over the tiled roof of a shed facing south, where it gets all the sun available, and during the hot weather the plant must be almost roasted on the tiles. The roots are in a narrow border 10 inches wide and 1 foot deep. At the foot of the wall along with a fifteen year old plant of *Fabian imbricata*, the bare stems of the *Solanum* travel up the wall behind its companion, and are leafless until the roof is reached, when it rambles away at will. Abundance of water is given the roots in hot, dry weather, to which its success is largely due. A happy combination for the *Solanum* would be *Ampelopsis Veitchii* on a pillar

south wall, where the brilliancy of the Ampelopsis would serve as a delightful background to the Solanum.—E. M.

Suggestions for Kew and Hampton Court Gardens.—I note in a recent issue of THE GARDEN that an addition has been made to the wages of the gardeners at Kew. I have also been filled with admiration of, and a longing for, some of the rock plants there; and I would like to ask if it would not be infinitely better for the authorities there to keep a shop and coin money out of their unavoidable increase of stock than to stick up turnstiles and screw the paltry pence out of the poor? The visitor—like myself, for instance—could see the conditions necessary to successful growth of his purchase, and if he could not supply them, well, he could transfer his affections to some other treasure. I have in my time bled profusely for florists' fabled wonders; now I prefer that the other chap should pay—for experience! I trust you will allow me space for another matter. At Hampton Court the long walk running from the Water Gallery to the Pavilion, *i.e.*, the part of it bordering the Sahara of gravel, could be apportioned to Rose breeders and growers. Called the "Alexandra Rose Walk" it would worthily perpetuate the day and the founder. On application, a certain space would be allotted and the florists have sole control of the planting and cultivation of their marvels *at their own expense*, in return for which they would be entitled to exhibit a notice giving the addresses of the firms. This would weed out a lot of the mediocre synonyms that overload the catalogues at present. The numerous orders they would obtain would more than recompense them for their outlay. And the fables of the florists' lists would fade like—well, like W. A. Richardson and others of a similar nature. Instead of empty beds, as at present, our parks,



A LEMON YELLOW HOLLYHOCK ELEVEN FEET HIGH.

pleasaunces, &c., would glow again with the floral beauty that in spite of, or by the aid of, our much-abused climate proves the truth of the poets' title, "Flower-loved England."—J. D. COOPER, *Surbiton*.

A Seedling Hollyhock.—I enclose a photograph which may be of interest to you. The Hollyhock measures 11 feet and was grown from a penny packet of Ryder's seeds sown last summer. It is lemon yellow and came true to name and colour, and is of a perfect double form. The boy standing beside the Hollyhock is 5 feet high.—B. V. YORKE, *Armscote Manor, Stratford-on-Avon*.

The Cruciform Sundial.—Mr. Edward Mawley's sundial, illustrated in THE GARDEN for September 9, page 437, has a peculiar interest for us, since there is one just like it in my mother's garden close by. We discovered this dial nearly half a century ago in a very old orchard, where it was standing on an ancient Apple tree stump so decayed that had it not been supported by a tangle of Monthly Roses and Traveller's Joy, it must have fallen years before. In addition to this growth a large Medlar and a great bush of Laurel to the south effectually helped to screen it from the sun. One would like to know something of the history of this cruciform sundial, for it is surely an uncommon design. At any rate, Mr. Mawley's specimen is the only one of its kind other than our own that we can ever remember having seen. In my illustration the sundial is shown resting on the base of an Arbutus tree (*A. Unedo*), which died and was cut down after attaining a height of nearly 20 feet.—A. T. JOHNSON.

Calyx Splitting in the Carnation.—It appears to me somewhat strange that in the note anent this subject on page 424, issue August 26, no mention is made of one of the primary or predisposing causes of calyx splitting, *viz.*, the peculiar pod formation certain varieties assume. Attention, too, is only directed to one aspect of cultivation—that under glass—as though calyx splitting was unknown elsewhere. It should be remembered, however, that, to some extent at least, calyx splitting is in the nature of an inherent defect, and occurs all too freely in more than one phase of the Carnation tribe. It is common in the Pink and frequent in the border Carnation, as Mrs. Sinkins and the Old Crimson Clove Carnation respectively amply testify. To neither of these, however, could the remark about "too high an artificial heat" possibly apply. Without doubt the most consistent splitter of all Carnations is the Malmaison; the reason, in common with those above named, not far to seek. The pods (flower-buds) in all of these are of Pear-shaped outline: short, globosely formed at the top, tapering or contracted at the base, and out of all proportion to the requirements of the flower. Calyx splitting, or side bursting, is a natural result. Generally, however, and fundamentally it is due to the shortly formed, Pear-shaped bud and the excessive petal fulness of the flower. Conversely, varieties having long, cylindrically inclined calyces rarely burst, and, all else being equal, these are the ones preferred by the raiser of these flowers to-day, as for some years past. In the Perpetual-flowering class, to which special reference is made in the note in question, it is true that calyx splitting in winter is far more prevalent in varieties comparatively free from it at other times. It is due, however, in the main to sluggish root action and sunlessness rather than to "insufficient ventilation," which is the cause assigned. If, in



A CRUCIFORM SUNDIAL IN A WELSH GARDEN.

conjunction with these, there is unintelligent cultivation—an excess of water at the roots, which, in the circumstances, cannot be assimilated, or extreme variations of temperature, too high or too low—splitting will be increased *pro rata*. Winter flowering in the Carnation should, of course, be regarded more or less as an alien condition, it being the result primarily of the advent of the "tree" or "perpetual" growth sport in the plant, and, secondly, the skill of the gardener in making use of it. In these circumstances, probably a few generations more of intelligent cross-breeding may yet be required to produce a more responsive winter-flowering race than that which obtains to-day, or one more suited to the climatic conditions of the British Isles.—E. H. JENKINS.

Tulipa persica.—This is, I consider, the best and most reliable of the dwarf Tulips which may be employed even in the smallest rock garden. Some essentials for a rock garden Tulip are that it should not require annual, or even occasional lifting and drying off, and that in a permanent position it will thrive and bloom with freedom every year. Another consideration is that of dwarf habit. I have at various times tested all the dwarf Tulips which have been in commerce for the past thirty years, and I find that *T. persica* meets these requirements better than any other. It is in bloom in May and early June and is highly pleasing with its bright yellow flowers, flushed with bronze outside. It is only a few inches high, and remarkably bright and pleasing when it opens its flowers flat to the sun in spring-time. It generally flowers towards the end of May here, where it is planted on sunny rockwork facing south-west and in dry soil. Mr. Reginald Farrer says of this Tulip that it is "little and rather delightful, with golden flowers, coppery outside." I prefer the term "bronzey" to describe the exterior colouring, but that is a matter of opinion.—S. ARNOTT.

FORTHCOMING EVENT

September 26.—Royal Horticultural Society's Meeting and Exhibition at Vincent Square, Westminster.

THOUGHTS SUGGESTED BY NEW DAFFODILS IN 1916

BY THE REV. JOSEPH JACOB.

A "PINK" YEAR.

THE time is out of joint." When William of Germany dropped the stone of war on the peaceful surface of Europe, he set up an agitation the limits of which are only bounded by the extremities of our planet. Even the noiseless tenor of the way of the Daffodil has been rudely interrupted, for if the exhibition hall be the end-all of a seedling's life, in 1916 (to alter one word in Gray's oft-quoted lines),

"Full many a flower was born
to blush unseen,
And waste its sweetness on
the desert air."

Nothing from Brodie of Brodie, nothing from Watts, nothing from Guy Wilson, to name but three of those from whom a yearly supply of "good things" may in normal years be counted upon.

Comparatively few, I fancy, came from those who did send compared to those who might have done so. Our hearts have gone out to "J. C." in his sad, proud mourning; and as Tuesday after Tuesday came and there was no white tiering in the accustomed annexe in the hall at Vincent Square, nor any to look down as it has done for a generation past on the splendid exhibits in the "well" at Birmingham, we realised that Time claims his victims no less than war, and that Dinton is not sacrosanct from his attacks—nor, alas! is Bath. There is something *wanting* in a season with practically no Engleheart and no Ware; yet so it has been. But, I am glad to say, not quite altogether. The red-cupped Fortune shown by Mr. Walter Ware in his fine Bourne Cup twelve at Birmingham was one of the most outstanding flowers of the year. It outclassed Helios in size and depth of colour; and if the future proves it to be a plant of good constitution and Emperor-like in its disregard of climatic conditions, it will assuredly be heard of again. It is described in my notes as a Giant Incomparabilis with a diameter measuring $4\frac{1}{4}$ inches across, yellow in colour, and with pointed segments; while its cup measures $1\frac{3}{8}$ inches from edge to edge and is of a solid, glowing red, which is more intense round the top.

The magnificent Giant Leedsii which were the Rev. G. H. Engleheart's contribution to the Midland Show are high-water marks in this wonderfully beautiful race. The largest measured 5 inches across and had somewhat pointed segments, flat and nicely imbricated. The most "floristy" of the four was not quite so large, being only $4\frac{1}{4}$ inches in diameter. The segments are on the narrow side, being $1\frac{1}{2}$ inches across and $1\frac{3}{8}$ inches

long. The flower marked 26—6 had a pink edge to the cup. In this particular, however, it could not be compared to Miss E. M. Bowling (4A), shown by Mr. Cranfield. Here the colouring was most pronounced, more so than I have ever noticed it in any of the type before. I call this flower a real little lady; it is so spick-and-span-looking with its flat imbricated perianth set at right angles



A POT OF THE DARK LAVENDER DARWIN TULIP DUCHESS OF HOHENBERG.

to the long, pink-edged cup, which is very distinctly and prettily frilled at its edge. Size, $3\frac{3}{8}$ inches in diameter, inner segments $1\frac{3}{8}$ inches long by $1\frac{1}{8}$ inches, and cup $1\frac{1}{4}$ inches long and 1 inch wide.

I am not a racing man, but I believe it is usual in racing circles to refer to certain years under the name of the Derby or Oaks winner. "Hermit's year" and "Flying Dutchman's year" are famous landmarks, and their dates are as well known to the "fraternity" as I know 1066 to be the year of the Battle of Hastings. In like manner I would dub 1916 a "pink" year. We have had the colour in the cup of the above-mentioned Giant Leedsii. (By the way, it would interest many should

these words catch the eye of either Mr. Engleheart or Mr. Cranfield, if they would tell us if the pink is like "bouquet" in wine—only developing with age, like the deep straw colour in Thora.) We have had it, too, in a fair number of what I am to be sure are pure-bred Poets. From a conversation I had with Mr. A. M. Wilson I am told they are frequently to be found in his Poet seedling bed. We have had it also in both the Barrii and Incomparabilis sections.

Pink 'Un (2B), raised by Mr. Buckland of M. Bourne, is, comparatively speaking, fairly well known in Australia and New Zealand, and when

I saw it *incognito* in London this year I was much struck with its symmetry, texture and colouring. I believe this was its *début* at an English show, but before we are much older it bids fair to become one of the regular "classy" show flowers. Mr. Wilson had no fewer than four of his own pink-edged seedlings in Class 34 at Birmingham. Two were quite a brilliant pink, and two, I find, I have called an ochre pink. Dr. Lower in his "fifty" at the same show had an exquisite vase of Pinkie (9). I felt a victim at first sight. It looked so fresh, so refined, so sweet, so Peter Pan like. It is quite against the grain to write of it in Daffodil terminology. It is a vision of the purest white, broken only by the well-defined coral edge of the corona.

On March 28 "G. H. E." made one of his rare appearances at Vincent Square. We who know him pretty well are aware that in a catechismic sense he is generally accompanied by a long, white-lined wooden box, and you bide your time and at a favourable opportunity you buttonhole him and ask "What have you got, old chap?" And the reply generally comes "Oh, I have rather a nice trumpet pet," or "I have got a striking bit of colour which is unusual." On this occasion, when my turn came for a peep, what do you think I saw? The pinkest trumpet by far that I had ever seen. It was indeed unusual, and it was very striking. As its owner considered it in a state of *déshabillé*, I was not allowed to get it photographed or to take its measurements. As, however, there are twenty bulbs of it at Dinton, it is pretty sure to

be seen again. Tewkesbury Show on April 13, which I visited as a judge, is connected in my mind with pink. Messrs. Barr and Son had a very nice trade group there, and when I went round with the lady who had opened the show I found she "went for" all the pinks on the stand, viz., Coral Queen (Barrii), Salmonetta and Chamois (Leedsii). Had it not been war-time, I think my suggestion of a pink class for the Midland Show of 1917 would have been adopted. The time seems ripe for such. They are coming in increasing numbers. I ought to mention, too, that Mr. P. D. Williams had a charming little midget at the Royal

Horticultural Society's Daffodil Show with quite a broad band of pink to the dainty little cup and a nice white perianth which slightly recurved. It is called Trenithon, and if my memory serves me, it is a Barrii.

When all these straws are gathered up, they will be found to make quite a little bundle—enough, at all events, to suggest the advent of all pink or part pink coronas appearing before long in force.

FORCED MAY-FLOWERING TULIPS

THE Association of Dutch Bulb Growers, whose headquarters are at Haarlem, certainly leave no stone unturned in their endeavours to do the best for the various bulbs which give them their *raison d'être*. Their exhibition of late-flowering Tulips was held on February 21 of the present year, and through the kindness of Mr. E. H. Krelage, the President, we have been favoured with a photograph, reproduced on page 464, of the beautiful deep lavender Darwin Tulip Duchess of Hohenberg. The photograph was taken on February 20, the day before the show. It demonstrates the suitability of this particular variety for early work. Among others which were especially noticeable were Prince of Wales (Mr. Krelage calls it the "champion"), Charles H. Marot, Princess Mary, La Fiancée, Bartigon and Bleu Aimable. Some of the new "Lily" Tulips—Siren and Artemis, for example—were shown by Messrs. E. H. Krelage and Son, and, from what we are told, the "flower-shop people" went mad over them.

The Rev. J. Jacob at the Bulb Conference in August last suggested the advisability of the Royal Horticultural Society undertaking trials of pot-grown bulbs. We are behind Holland in this respect. Is it too much to hope that Mr. Jacob's suggestion will in time bear fruit?

MAY - FLOWERING TULIPS

I HAVE to thank the Rev. Joseph Jacob and other writers in THE GARDEN for stimulating my interest in May-flowering Tulips. The beauty of these flowers has been a perfect revelation to me. I never thought they possessed so many virtues. They are hardy; have beauty of form; long stems; clear and brilliant colours, in addition to many art shades not found in any other flower; good substance and lasting qualities, and, in many cases, fragrance as well. They produce a brilliant display in the garden at a time when rich colour is more highly appreciated than at any other period of the year. The flowers readily lend themselves to artistic treatment, and are particularly useful for filling vases. One of the prettiest table decorations I have ever seen consisted of a large bowl filled with the Tulips Gesneriana major, crimson; Bouton d'Or, deep yellow; and Clara Butt, pink. Experience has shown, and it was fully demonstrated at the recent Bulb Show, that

the finest bulbs of Darwin and Cottage Tulips are produced in the United Kingdom. John Dutchman has had more than his fair share in the past of the money spent on bulbs in this country. Now that all Dutch bulbs are prohibited, an opportunity is presented of which every Tulip-grower ought to take advantage. The purchase of these bulbs for the garden, or for conservatory decoration, will help a very deserving home industry. The mute appeal of the bulb catalogues, now to hand, seems to say: "Buy home-grown bulbs." You will have to "wait and see" until the spring is well advanced for the results, but they will not disappoint you.

Our garden is situated in the North of Scotland. We are fortunate in having several long herbaceous borders. It is in such that I think the May-flowering Tulips display their greatest charms if planted informally and in clumps of from six to nine bulbs. I would strongly advise those

back of the borders I would recommend the tall varieties Isis, brilliant vermilion; Psyche, pale rose pink; Viola, dazzling self violet; Mme Krelage, soft rosy pink, edged light rose, early; Tak Van Poortvliet, glowing scarlet; Mr. Farncombe Sanders, bright cochineal red; Mrs. Moon, rich deep yellow, with long pointed petals; Pride of Haarlem, cerise; Sophrosyne, soft rose, shaded lilac; Go dvink, tortoiseshell and brown; and L'Ingénue, rosy white.

Of those of medium height, the best are Bouton d'Or, deep golden yellow, of great substance, and globular form; Clara Butt, rose pink; Elegans, deep crimson, reflexed petals; Fra Angelico, black, early; Gesneriana major, bright red; Golden Crown, yellow, edged red; Inglescombe Pink, mauve and pink; Inglescombe Yellow, perfect form; La Merveille, salmon rose, shaded orange, sweet-scented; Melicette, lilac mauve, often produces three or four flowers on



TULIPS AND FORGET-ME-NOTS AT WOODSIDE, CHENIES, BUCKS.

who have not tried them in such a position to make a start at once. We put the bulbs into Mother Earth from the middle of September until the end of October. Our soil is a heavy clay, but at the time of planting a liberal mixture of leaf-soil and sand is added. The Tulips luxuriate in this. In the North, flowering begins about the middle of May and continues until the third week in June. If the greatest measure of success is desired, the bulbs should be lifted annually. This is done before the end of July in our district. After being dried, the largest bulbs are retained for replanting; the smaller offsets are planted during September in nursery beds and in two years they form good flowering bulbs.

For the guidance of those who contemplate planting May-flowering Tulips in herbaceous borders, the following will be found suitable; they have all done well in our garden. For the

one stem; Coronation Scarlet, produces three or four flowers on one stem from extra large bulbs; Orange King, red orange, sweet-scented; Pompadour, rich dark crimson; Picotee, white, edged rose, a gem for cutting; Retroflexa, yellow, with recurved petals, most distinct and a gem for cutting; Rev. H. Ewbank, mauve, edged grey; and Ascanio, deep mauve.

To those who can afford the price the following choicer varieties will give unbounded delight: Bleu Amiable, Frans Hals, The Bishop, Valentin and Salaman. These are of heliotrope, purple, blue purple, pale purple and lavender colours. They are great favourites with ladies.

Every reader of THE GARDEN will be "doing his bit" if he sends an order for home-grown bulbs to the seedsmen who have sacrificed so much for their country's welfare in its hour of trial.

J. G. W.

NOTES FROM MYDDELTON HOUSE GARDEN

By E. A. BOWLES, M.A., F.L.S.

ONE of the best of all late-flowering shrubs is now such a beautiful sight that I have picked two sprays of its flowers to draw. It is my favourite of the many good forms of the Tree Hollyhock, *Hibiscus syriacus*, or *Althæa frutex* as

of the plants of which he always had a store of rooted cuttings ready for his friends who admired the parent tree. The flowers are larger and of better substance than in any other variety of this *Hibiscus* that I know, and it seems to be both earlier in flower and more lavish in its number of blossoms. They are of a very pleasant shade of pink, perhaps best described as



HIBISCUS SYRIACUS

HAMABO.

(From a drawing by

E. A. Bowles.)

it is often called in gardens. It goes by the name of Hamabo, but is not the *H. Hamabo* of Siebold which is figured in his great work, "The Flora of Japan." It must be a garden variety of *H. syriacus*, and I believe it came from Japan and was introduced to English gardens by Mr. Chambers. It soon strayed away from his beautiful garden at Haslemere, for it was one

flesh coloured, but their chief charms are the deep crimson maroon blotches at the base of each petal, with veins or rays of the same colour spreading out from them a little way over the blush pink centre of the petal. Also they are for the most part very perfectly shaped and quite single, though occasionally a fragment of an extra and crumpled petal spoils the symmetry of a flower.

One does not sufficiently often see these single Tree Hollyhocks in gardens. It seems likely that the double forms so dear to Continental nurserymen, and which are not well suited to our colder summers, have given the race a bad name. Except in the sunniest summers and the most favoured spots, these double forms often drop their buds unopened late in September and are utter failures as flowering shrubs; but I find the single ones flower well in most seasons here if they are well watered during spells of dry weather. They all like to have their feet in a well and their heads in a furnace, after the manner of the Date Palm as stated by the Arabs. There has been but little of the furnace about our climatic conditions for the last fortnight, however, and yet Hamabo is more beautiful than I have ever seen it before, and so laden with buds and flowers that it looks as though it had just stepped out of a panel of some Chinese screen. *Crinum Powellii* has also been pleased with the season, and is now flowering here in a way it has never aspired to before. The flower-stems are much taller than usual, which is doubtless due to the rains; but unless it can be laid to the credit of the mildness of the winter, I cannot account for the unusual number of these stems. Canon Ellacombe used to say, as he stood before its widely opened flowers, that he considered the white form of this *Crinum* the most beautiful flower that could be produced in the open air in England, and he was no bad judge. He grew the larger and finer *C. Moorei album* also, but realised that it needed protection in bad winters, and even then in cool summers was liable to flower too late to develop fully; whereas the white *C. Powellii* can look after itself in most borders with a southern exposure.

The second spring of the year has just begun in the rock garden. I mean that sudden upspringing of flowers of bulbous plants that welcomes in the cooler nights and dews and soaking rains that come after St. Bartholomew's Day. *Crocus Scharojanii* may be expected to show the tip of its green sheathing leaves about then, and a few days later its glowing orange flowers. It punctually showed its first flower this season on August 24. The red stems and white buds of *Leucojum autumnale* were first noticed on the next day, and now many of them bear fully opened flowers. It is one of the loveliest, though smallest flowers of the season. The little staining of crimson at the base of the segments sets off the purity of the rest of the bell in such a wonderful manner.

I planted a few spare bulbs of *Zephyranthes Andersonii* out in the rock garden in sheltered corners of the moraines, and am delighted to see the crimson of several unopened buds newly speared through the soil round one brilliant yellow, fully opened flower. Those that are growing in the open are more richly coloured than others now flowering in a frame, and if only their foliage can get ripened enough to feed up the bulbs for next year before the winter interferes with the work, I think the plant will do well outside. The flowers are about the size and shape of those of *Crocus susianus*, but do not reflex, of course, remaining funnel-shaped even when fully open in the sunshine. They are bright yellow edged with orange internally, and orange striped with crimson on the outside, and are raised up on naked stalks for about 6 inches. The lovely rose-coloured *Zephyranthes macrosiphon*, with rather

larger flowers, is also flowering beautifully in the frame, but I have not ventured to plant it outdoors yet. I did risk some plants of the curious hybrid between *Bravoa geminiflora* and *Tuberose* out all through the winter and quite unprotected in the Peach-house border, and am pleased I did, for they are now in flower and more robust and better coloured than those grown inside in pots. It shows very little of the *Tuberose* parent, except in the foliage and the pale colour of the flowers. These are in pairs, as in *Bravoa*, and tubular, shaded outside with many tints of salmon and orange, and a soft cream colour inside with rosy edges. By night they are pleasantly fragrant, but not nearly so strongly scented as the *Tuberose*.

Colchicums are racing out, and puzzle me more than ever with their endless but very slight differences. *C. Bornmülleri* generally appears first here, and must be a close relation if not a mere form of *C. speciosum* I should say. However, it always arrives before it by several days, is rather more pointed in flower, and with the peculiar habit of being almost white at its first appearance, then becoming pied, and at last flushing pink all over except at the tips of the segments. A long pointed flower, with faint tessellations of crimson on its brilliant rose-coloured ground, I believe to be *C. Tenorei*, and I like it greatly, as it has good substance and lasts well.

C. Agrippinum appears to be the correct name for the plant generally grown as *C. variegatum*. It is the first to flower of the markedly tessellated forms, and is a wonderful flower to examine carefully through a lens; the chess-board squares of its decoration are here and there so wonderfully regular. *C. byzantinus* is a freer flowerer, but rather pallid in its pink, especially in bud; it is too chubby in shape to be one of the most attractive, and, considering the small size of its flowers, one feels it has no business to produce such enormous and coarse leaves in spring. There is a plant known as *C. giganteum* that is good. I should think it is but a form of *C. speciosum*, but it has a green tube instead of the rich purple one that proclaims true *speciosum*. What I like about it, however, is the extra amount of white in the throat and at the edges of the segments, which gives it a very dainty appearance, even from a distance. Flowers have just appeared on some corms most kindly collected for me by Lieutenant Ambler near Salonika, and two different species are among them. The one bears many small, starry flowers that are apparently distinct from any other I have, but the one large tessellated flower that appeared to-day looks as though it may develop into that loveliest of all the chequered species, *C. Sibthorpii*, which has almost died out in English gardens. It was always a late-flowering form here, so I am all the more

pleased with this early one, and hope that, like other early flowering species, it will possess a good constitution. Thus the autumnal bulbous plants fill the beds with beauty and provide plenty of botanical and cultural puzzles for the thoughtful.

Of plants other than bulbous I must say a good word for *Viola cornuta* Alannah. It is, I think, a hybrid raised at Lissadell between *cornuta* and *bosniaca*. It has the *cornuta* habit, but a roundness of flower and warm rosy shade over its purple

plant we had always grown under that name was really *S. pedata*, and the true *Munroana* had but recently come to light. I still grow and like the older and prostrate plant with its fingered leaves and soft red flowers, but must own this new-comer with its bright green leaves and well-cupped fiery orange flowers is just now one of the most beautiful things in flower, and a fair rival to *S. canescens*, which grows on the ledge above it. This last was brought by Sir Hugh Beevor from the Grand Cañon, and in hot and dry seasons is a glorious sight, as its silvery leaves add so much to its charms. The flowers of the true *Munroana* are, however, a little larger and certainly brighter in colour, and it has not minded the wet season so much as has poor *canescens*.



LILIUM AURATUM PLATYPHYLLUM VIRGINALE IN THE GARDEN OF MRS. FARRAR, BOWDEN, CHESHIRE.

This plant is from one bulb. There are two stems, the taller 7 feet 6 inches, with thirteen flowers, and the other 6 feet 6 inches, with nine flowers. From a photograph taken on September 2.

that may well have come from the other parent. It has been a mass of flower since May, and has not become straggly yet, as do most of the *cornuta* forms; but what charms me most is the clear-edged, bright yellow eye of the lowest petal, which makes such a distinct point in the centre of the flower below its white woolly eyebrows drawn together with an expression of deep thought. Lastly, *Sphæralcea Munroana*, sent me two years ago from Kew, is a lovely upright subshrubby species for the rock garden. When Mr. Irving was here that summer he told me that the

be covered with light, rich soil (loam, leaf-mould, old hot-bed material, one or all of these), as they are there to feed the flower-stem. A few weeks later, if the growth is vigorous, a second ring of roots will appear, and must be similarly protected. It is almost impossible to treat these Lilies too well in this respect. Failing this care, the stem roots wither away, and the flowers have to depend on the bulb and basal roots for their nourishment. The bulb is unequal to the additional strain, and fails to reproduce itself. Result: Death of the bulb,

A PLEA FOR MORE LILIES IN OUR GARDENS.—III

THE photograph shows *Lilium auratum platyphyllum virginale* (pure white, faintly spotted yellow, with yellow band down the centre of each petal) flowering at the beginning of September in what is practically a suburban garden. The bulbs have been in their owner's possession for four or five years and are grown in pots, which are sunk in the open border all the summer, but wintered in a cellar. The flowers are really beautiful at the present time, and I have rarely seen any so good. One bulb has two stems, the taller of which measures 7 feet 6 inches and carries thirteen flowers; the other, rather shorter, has nine flowers. Strong, acclimatised bulbs such as these, however, should flourish just as well planted out and left in the open border all the year round if properly cared for, their chief requirement being a rich top-dressing once or twice in the growing season to feed and protect the stem roots. All stem-rooting Lilies must be top-dressed, and catalogues always mark those with this peculiarity. If examined in May or early June, a ring of these roots will be found round the stem on the surface of the soil. These must at once

and the all too frequent lament, "Oh, Lilies do no good with me; they never flower a second year"!

Some growers seem to think this has been a bad Lily year. Certainly *L. candidum*, *excelsum* and *chalcedonicum* suffered badly here from the late spring frosts which are anathema maranatha to their early growth. But with me *zovitzianum* has never been so good. The heavy rains of the middle of August, while the flower-buds of *tigrinum* *splendens* and other Eastern Lilies were developing, were most beneficial, and the group of this variety (*tigrinum*) has been a lovely bit of colour during late August and early September. Top-dressing and occasional doses of soot-water—that cheap and invaluable tonic—have given it strength and vigour, as shown by its erect stems, healthy deep green foliage, and good crop of axillary bulbils. *L. Henryi* is pretty, near this, but I have never succeeded in getting more than seven or eight flowers on a stem, although the plant is strong and healthy enough. Can any reader help me?

I see that at the Conference on British-grown Bulbs, on August 1, Mr. Barr is reported to have mentioned, among bulbs growing well in England, "Lilies, with the exception of *Japanese* and *Indian* species." I have always found *L. speciosum* *Melpomene* one of the easiest to grow, and it is most prolific of increase, both by offsets and by tiny bulbils which form round the base of the flower-stems when well top-dressed. It should

do equally well in any other sandy district of Great Britain. Good drainage, rich top-dressings and copious soakings, if the summer be dry, are the chief cultural essentials. It likes a little good peat (though I do not think it is absolutely necessary), and the roots should be shaded from the midday sun by some low-growing shrubs.

Do not hide your Lilies away in the midst of a dense bed of *Rhododendrons*. In every case their habit of growth and stem foliage are so beautiful and characteristic that they should be seen as much as possible. No doubt when the war is over and labour more plentiful, the Lily beds at Kew will be overhauled in this respect.

Altrincham, Cheshire.

W. D.

LEEDSII DAFFODILS

HOW came this name *Leedsii*? There is no doubt that the name was given by old Peter Barr, the Daffodil king. I happen to possess a rare little pamphlet entitled "Reading on the Cultivation of the Daffodil." This is nothing less than the paper which the aforementioned monarch read at the September meeting of the Sea Point Horticultural Society of Capetown in 1901, when he was "on" his celebrated tour to South Africa and the Dominions. In his description of the

Leedsii Daffodil I find this passage: "It differs from all ancient forms of the incomparabilis Daffodil. I therefore considered it best to make a new section of it, to keep names as short as possible and to avoid confusion, so named the section after Mr. Edward Leeds, one of the raisers of the new Daffodils."

When was this name given? The earliest use of the word that I have come across is in Barr's 1882 Autumn Catalogue of Bulbs and Plants. On page 12 seven varieties are labelled "*Leedsii*," and, what is of great interest, Katherine Spurrell is put under a group name which only had an ephemeral existence of some two or three years, "*Vincenti*." Its use, however, shows us that the difficulty of going entirely by colour existed in the very beginning of garden classification, and that it is nothing new to be doubtful to which artificial section certain borderland flowers should be assigned. *Vincenti* seems to have been a sort of refuge for all doubtful (but not, I trust, suspicious) characters, for Minnie Hume began life as a *Vincenti* in 1883. However, in 1884, in the catalogue which was the outcome of the great conference held on April 1 of that year, we find



A SCROOBY WHITE LADY SEEDLING.
—It has a distinct cinnamon edge to the cup.

these notes, under *Barrii*: "The group *Vincenti* has been partly included in *Barrii*"; and under *Leedsii*: "The group *Vincenti* has been partly included under *Leedsii*." Minnie Hume is now a *Leedsii*, while her old mate Miriam Barton has become a *Barrii*.

Again, why did old Peter Barr give this name to this special division? It is certainly not what one would have expected who knew his description of Mr. Leeds and his flowers: "Mr. Leeds' flowers are all more or less coarse." (I do not agree with Mr. Barr here, for how about Princess Mary, Katherine Spurrell, Frank Miles, and John Nelson?) "He was an offhanded, sharp business man with not much refinement." My point is not whether this summing up of his character and his flowers is accurate or not, but that, holding these opinions, the "king" chose to give the name *Leedsii* to a group which was then, as it still is, almost the most refined of all; at least, as such it always appeals to me.

We have a coloured picture in the *Gardeners' Magazine of Botany* for 1851, page 196, of a *Leedsii* raised by Mr. Edward Leeds himself in his garden opposite the old Botanic Gardens of Manchester. This was called *poculiformis elegans*, and was similar to the well-known Frank Miles in shape; but both perianth and cup are white save for a wide band of deep apricot round the brim of the corona, deepest at the top, and then fading away till about halfway down all the colour has gone. This was raised from a cross between *montanus* (*poculiformis*) and *Poeticus* (?) or *Poeticus angustifolius*. For a considerable time in the eighties it was offered in Barr's, Hartland's and possibly other lists. *Montanus* was at one time thought to be a wild hybrid, but it is now usually described as a very old garden hybrid. Dean Herbert suggested as its parentage *moschatum* x *dubius*.



LEEDS' DAFFODILS.

Reproduced from the "*Gardeners' Magazine of Botany*," 1851. The top flower, resembling Frank Miles in shape, was called *poculiformis elegans*.

This, however, is doubtful, and a white trumpet crossed with a Poet has lately been considered its more probable origin. We may look upon it as the firstborn of the Leedsis, the little stranger that had to wait ever so many years before any brothers or sisters came to keep him company. The family is now an immense one, and few contain a larger number of types.

If we may consider a white Ajax crossed with Poeticus pollen as the stock method of raising these Eucharis-flowered Daffodils, the advent of the resulting progeny of this matrimonial alliance has produced an altogether new and surprising race, in popular parlance now known as Giant Leedsis. The appearance of Minnie Hume and others of a similar type may be compared in their far-reaching results to that of de Graaff's wonder-working white trumpet Mme. de Graaff. One feature about the peculiarly charming flowers that constitute this section is that they are judged by sight and not by faith. A scoffer might say with a hundred per cent. of truth in his remark, "They are a mongrel lot." Mongrel, I believe, comes from an Anglo-Saxon word meaning to mix, and why the word should now always have a somewhat derogatory or defamatory significance I know not. Old Venice Treacle was about as mixed up a thing as ever existed, but it was a sort of trump card in the European Pharmacopœia for many centuries, and there is not a sailor in the High Sea Fleet or a "Tommy" in the trenches who will not appreciate a good "tuck in" at those toothsome mixtures known to Englishmen all the world over as Christmas puddings and mince pies when Christmas comes again. According to the classified list, a Leedsii Daffodil may be composed of almost anything nice or nasty; and were we to see a full collection staged we would know from its diversity that it must be so. There would be those huge white beauties sent by the Rev. G. H. Engleheart to Birmingham this year, glorified White Pennants, but not quite so starry; while another of the same type would be the lovely slender and refined Mogador—all of them shocks to the old round-flowered school. Then such typical giants as Empire, The Fawn, H. C. Bowles, Norah Pearson, Venus and the old White Queen; then wondrous colouring in Thora, Chamois, Salmonetta and in that striking *débutante* Miss E. M. Bowling; then the statue-like whites Ethereal and Moonbeam; then the small, shapely Eoster; then old-time favourites like Duchess of Westminster and Katherine Spurrell; then the striking flat-centred beauties like St. Olaf and Hypatia—a goodly company, which leads me on to an interesting idea which I put in question form. Has not the time come for specialising in one or other of the great sections.

J. J.

A SCROOBY WHITE LADY NARCISSUS SEEDLING

THE illustration on page 468 shows one of the beautiful White Lady seedlings which have been raised by Mr. J. Mallender of Scrooby, near Bawtry. This variety is at present unnamed, but the very pronounced pale cinnamon brown edge to the cup suggests possibilities of colouring for the future as great as those suggested by Mr. Cranfield's Miss E. M. Bowling at Birmingham with its



LUCIFER, A GOOD BORDER AND EXHIBITION VARIETY.

NARCISSUS LUCIFER

THIS variety is one of the showiest of the Incomparabilis class of Daffodils. It was raised years ago from a cross of princeps and Poeticus poetarum by Mrs. Lawrenson of Killiney, Ireland, who disposed of it to the Rev. G. H. Engleheart, who eventually sold the stock to Messrs. Barr and Sons. It may be said of N. Lucifer that it is equally a good border and exhibition variety. At the spring Daffodil shows the brilliancy of its glowing orange red cup set off by the white perianth immediately attracts the eye. N. Lucifer has been awarded first-class certificates by the Royal Horticultural Society and the Midland Daffodil Society.

THE POET'S DAFFODIL

BEAUTIFUL as are all the Narcissi, there is none that can compare for chaste loveliness with the snow white Narcissus Poeticus, which is as essentially the Narcissus of poet and painter as is the Madonna Lily the Lily *par excellence* of all her numerous sister flowers. Although nowhere out of place, the spring bulb bed is not the setting that presents these fair blossoms to the best advantage. Never do they look so beautiful as when grown naturally among natural surroundings, where they are able to give the impression of occurring accidentally. In the grassy glade the slim flower-stalks sway gracefully, the pure white blossoms spangle the verdure their crimson-rimmed eyes, that are answerable for the pseudonym of Pheasant's-eye, adding by contrast to their purity. Sometimes the Poet's Narcissi, growing on a mossy slope, are surrounded by colonies of wild Hyacinths; sometimes at the edge of a cascade they rise from a carpeting of blue Forget-me-not, or stand, in clumps, at the lakeside, mirroring their white petals in the dark water.

In all such situations they have that air of untrammelled freedom that must needs be absent amid more conventional surroundings, but which adds

so greatly to their charm, and it is such pictures that we have in our mind's eye, rather than the formal flower-beds, as the lines recur to us:

The white Narcissus wantonly
Kisses the wind.

It is

Beside the lake, beneath the trees,
Fluttering and dancing in the breeze

that these beautiful flowers of the English spring-tide show their true value, and though the latter couplet was written of the Golden Daffodils—the wild Lent Lilies—it is equally applicable to the Poet's Narcissus. The term "Daffodil" was,

wonderful pink-toned corona, or Mr. J. D. Pearson's almost apricot-coloured Thora. In all these cases the colour develops as the flowers age, and that they need the friendly protection of a glass house if in pots, or of a room if the blooms are cut, in which to, as it were, mature. There are many flowers which seem to say of themselves, when we see them at their very best, what the present Lord Spencer said when he was in the House of Commons, and who was acknowledged to be about the best-groomed man there: "I am not an agricultural labourer."

of old, applied to the whole family of Narcissi, and there is a pretty legend that its derivation is from Fleur d'Asphodel, and that the Narcissus of to-day is identical with the fabulous Asphodel of which poets of all ages have written, and which can scarcely have been the flower which is now known under that name. The two best known of the Poet's Narcissi are *N. Poeticus ornatus*, which blooms in April, and *N. Poeticus recurvus*, which flowers in May, while the double white *Poeticus*, which is a trifle later than *recurvus*, is equally hardy with the foregoing, and is easily naturalised in the grass.

N. P. poetarum is a distinct and exceedingly handsome form with a crimson eye, and there is a variety named *grandiflorus* which bears extra large blooms. Many very lovely hybrids have been lately raised from *N. Poeticus*, but the Poet's Daffodil is surpassed by none. One of the finest of the true *Poeticus* section is, without doubt, *Horace*, which is a beautiful flower of great substance and purity of colour, and very large.

S. DEVON.

NEW AND RARE PLANTS

AWARDS OF MERIT.

Cattleya Venus Variety Victoria.—A delightful novelty in which the sepals and petals are yellow,

gleam of sunlight. Hardy, too, in sheltered, sunny spots, it is quite a gem in its day and generation. It was charmingly shown by Mr. Clarence Elliott, Stevenage. (See illustration.)

Echinacea King of Echinaceas.—The plant appeals to us in this case before the name. It is, of course, a variety of *E. (Rudbeckia) purpurea*, its nearest colour approach being *atropurpurea*. These richly coloured forms are of great value in the autumn garden. From Mr. Downes, Chichester.

Currant Daniels' September Black.—A new seedling whose chief attribute appears to be its late fruiting. For this alone it should prove invaluable. A dish of fruits in bunches of excellent size and flavour, also fruiting branches, all produced in the open, were shown. Messrs. Daniels Brothers, Limited, Norwich, were the exhibitors.

The foregoing novelties were before the Royal Horticultural Society on September 12, when the awards were made.

NEW DAHLIAS.

Lady Beatrice Stewart (Pæony-flowered).—Of self rose colour. From Reginald Cory, Esq., Duffryn, Cardiff.

Mrs. Margaret Stredwick (Cactus).—Rose pink, florets finely incurved. Regarded as the Dahlia of the year.

Sir Douglas Haig (Cactus).—Clear pink, beautiful form.

Elegance (Star).—Rich rosy cerise, very showy. Exhibited by Mr. J. Emberson, Grove Road Nurseries, Walthamstow.

Miss Irwin (Decorative).—Rosy purple, with rosy mauve tipped florets. Excellent under artificial light. From Messrs. W. Treseder, Limited, Cardiff.

Eileen (Single).—Reddish purple, yellow base.

Crimson Flag (Decorative).—Medium-sized variety of intense colour. We thought highly of it.

Admiral (Collarette).—The most brilliant and distinct Collarette novelty of the year. It is of a lustrous crimson velvet tone, very rich and intense. The inner florets are white, stained red. These three were from Messrs. J. Cheal and Sons, Crawley, Sussex.

Bonfire (Collarette).—A magnificent and brilliant scarlet.

Yellow Queen (Collarette).—A self-coloured variety. These two were from Messrs. Dobbie and Co., Edinburgh.

General Joffre (Decorative).—Of extra large size and brilliant maroon colouring. Shown by Mr. J. T. West, Brentwood.

Margery Choure (Single).—Brilliant red or wine purple shade, the base of the florets yellow. Quite an exceptional shade. From Mr. A. Brown, Janthe, Seagrave, Beds.

The foregoing Dahlias, having been adjudicated upon by a joint committee of the Royal Horticultural Society and the National Dahlia Society, carry the award of merit of the former and the first-class certificate of the latter.

HARDY FRUIT CROPS

I WAS much interested in Mr. Beckett's remarks on this subject on page 446, issue September 9, and it is interesting to know that at Aldenham, where hardy fruit is so well cultivated, the crops are no better than in many other places. In our garden and district Apples and Pears blossomed profusely, but many varieties failed to set anything like a satisfactory crop, and as no frost was experienced at that period, it is exceedingly difficult to offer a convincing reason for the failure.

As Mr. Beckett remarked, several Apples of second-rate quality have cropped well. Among these, Melon Apple, Baumann's Red Winter Reinette and the old-fashioned Cockpit are notable examples with us. Lane's Prince Albert and Newton Wonder are a failure; but some trees of Bramley's Seedling are bearing well. Gascoyne's Scarlet, Peasgood's Nonsuch and bush trees of Blenheim Orange are carrying fair crops. Ribston Pippin and Adam's Pearmain are fruiting well; but Cox's Orange Pippin and Claygate Pearmain are bearing thin crops. Of early varieties, Lord Suffield is the best this year.

A shortage of Apples, although very general, is not the case everywhere. While visiting the gardens at Elsham Hall, North Lincolnshire, recently, I found most of the trees were bearing very fine crops of good fruits, especially the many fine varieties that were planted about fifteen years ago.

With us most varieties of Pears are a failure. Even Conference, which is one of the most regular bearers, has very few fruits. The best-cropped varieties are Clapp's Favourite, Emile d'Heyst and Beurré d'Amanlis. Plums are a fairly good crop, especially Victorias.

Batsford, Gloucestershire.

J. GARDNER.



OXALIS LOBATA, WHICH HAS GOLDEN ORANGE FLOWERS IN THE AUTUMN.

with a suffusion of salmon or terra-cotta. The lip is bright purple. It is a very handsome form. Shown by Pantia Ralli, Esq., Ashted Park, Leatherhead.

Cattleya Venus Golden Queen.—This exquisite form is characterised by long, rather narrow sepals of golden yellow colour and broad, ovately formed petals of the same shade. The lip is uniformly coloured a reddish wine tone. From Messrs. Charlesworth and Co., Hayward's Heath, Sussex.

Oxalis lobata.—A native of Chile. There is no more precious member of its race flowering in September and October, when its golden orange flowers, issuing in free profusion from a neat carpet of green leaves, renders it one of the choicest of rock garden subjects. Lover of warmth above ground and below, it responds readily to every

Lieutenant W. L. Robinson (Cactus).—Intense cerise.

British Lion (Cactus).—Chestnut bronze, touched with gold at the centre; florets broad. Distinct.

Challenger (Decorative).—The colour is reddish fawn, inclining to cerise on the outer florets.

Speedwell (Pompon Cactus).—Pure white, a promising variety for the florist and market man.

Wyvern (Decorative).—Full, but not overlarge. The colour is rosy mauve, with paler mauve centre. Quite distinct. These seven varieties were shown by Messrs. J. Stredwick and Sons, St. Leonards-on-Sea.

Dandy (Pæony-flowered).—Crimson, semi-double. From Messrs. Burrell and Co., Cambridge.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

Gathering Fruit.—This is most important work, and ought only to be carried out under an experienced workman, or many of the fruits will be bruised and will soon decay. If time permits, the trees should be gone over frequently and the ripest fruits picked, which will allow the others to develop. Care must be taken that the fruits are quite dry. Place them in the fruit-room, which must be kept cool and dry. Late varieties of Apples and Pears must remain on the trees as long as possible, but if the trees are exposed the fruits can be gathered earlier than from trees planted in sheltered situations.

The Kitchen Garden.

Lettuce.—Where pits and frames are available, they may be filled with Lettuce and Endive. Both should be transplanted while small, and care must be taken not to break the roots more than can be helped.

Late Peas.—These will need every encouragement to fill their pods, and an occasional application of weak liquid manure will be beneficial. If birds are troublesome, protect the crop with netting.

Carrots.—The main crop may be lifted at any time and stored in a cool shed for future use. The same remark applies to Beetroot, which requires some care in lifting, or many of the roots will not be fit for the table. Both may be placed in sand or finely sifted ashes.

The Flower Garden.

Roses from Cuttings.—Many Roses, especially those of the Rambler section, are equally satisfactory on their own roots as when budded or grafted. The Hybrid Perpetuals, and, in fact, any strong-growing Rose, may be increased by cuttings. Select a sheltered, partially shaded situation, and if the soil is of a retentive nature, a quantity of sand ought to be added. Medium-sized shoots should be chosen, and for preference those that are fairly well ripened. They must be from 9 inches to 12 inches long, and be planted in lines two-thirds of their depth, making the soil quite firm with the foot.

Chrysanthemums.—Autumn-flowering kinds will soon be producing a fine display, and it is essential that they be made secure to stakes. If the weather is dry, give the roots a liberal quantity of water.

Fruit Under Glass.

Early Pot Vines.—Vines in pots which are to produce an early supply must be thoroughly ripened, and they should occupy an exposed position outside until they are required in the houses. The growths should now be cut back to the desired length, and the roots must be kept supplied with water.

Plants Under Glass.

Gloriosas.—When the plants cease flowering and the foliage begins to change colour, the water supply must be reduced gradually, and finally withheld until growth recommences in the spring. Store the pots containing the tubers in a warm greenhouse where the atmosphere is dry.

Azaleas.—A low temperature will not harm these plants, as two specimens here were left out in the open last winter and bloomed profusely at the end of May. However, it is not advisable to leave the bulk out after this date if accommodation can be found for them in a cold house. If thrips are present, the plants should receive a hard syringing with some insecticide, and the operation repeated until all the eggs are destroyed.

Liliums.—*L. Harrisii* and *L. longiflorum* may be potted, and sufficient space must be left for a top-dressing later on when roots appear on the stems. When growth begins keep them close to the roof glass of a cool greenhouse.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Chepstow, Gloucestershire.

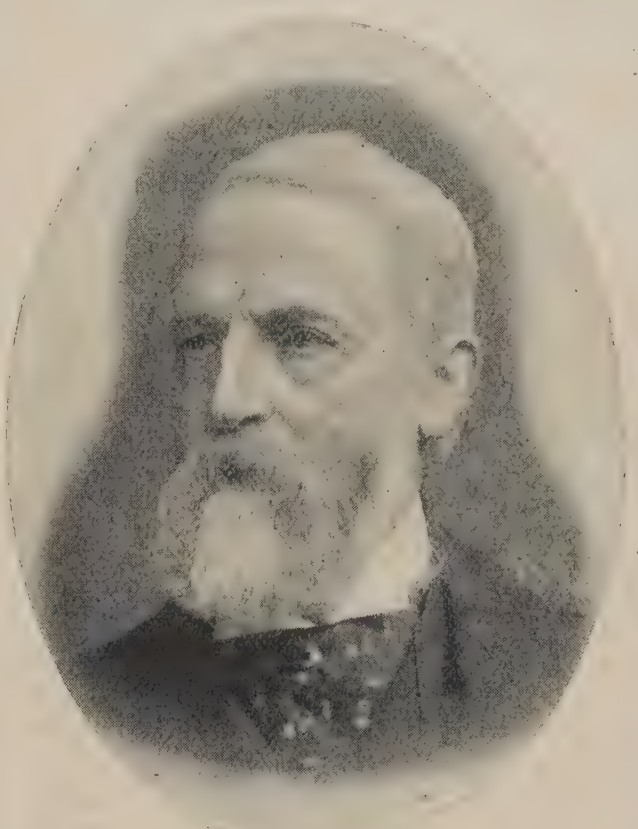
FOR NORTHERN GARDENS.

The Kitchen Garden.

Herbs most commonly in use should now be collected. These may be tied in small bunches and hung up from the roof of an open shed to dry. A fine, dry day should be chosen for cutting them, for if moisture is on the leaves when they are cut, they will turn mouldy and the flavour be spoiled.

Carrots and Beetroot.—These have now finished growth, and it is advisable to have them lifted and stored, even if the foliage is quite green. Carrots, especially when left too long in the ground, are apt to split and become coarse. They should be stored in pits with a little dry soil or sand spread over each layer, and covered to be secure from frost. Great care must be taken with the lifting and storing of Beetroot, so that the roots are not damaged or the tops cut too close to the crown to cause bleeding.

Salsify and Scorzonera.—These roots also require careful lifting, as both bleed freely when roughly handled. They should be stored in the same way as recommended for Carrots. Salsify



THE LATE EDWARD MAWLEY, V.M.H.

is a delicate and greatly valued dish with some families, and supplies a much-needed variety during the winter. The young leaves of both are also useful for salads if slowly forced and blanched in the Mushroom-house.

Parsnips are still growing freely and may be left in the ground for some time yet. Were it not for the damage sometimes caused to them by pheasants, they might be left in the ground till required for use.

Trenching.—Vacant ground may be trenched now if the time can be spared. Strawberry quarters that have served their usual time are generally the first to receive attention. A fair proportion of the garden should be trenched each season and as early as possible where the soil is of a heavy and retentive nature.

The Hardy Fruit Garden.

Root-pruning.—The root-pruning of any trees that have proved unproductive for several years should be undertaken about this time. If the tree is not too large, it may be lifted and replanted in the same manner as when planting a young one. Larger trees should have the roots laid bare, removing all strong roots with a downward tendency.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

OBITUARY

EDWARD MAWLEY, V.M.H.

It is our sad duty to record the death, from heart failure at the age of seventy-four, of our dear friend Mr. Edward Mawley, the beloved president of the National Rose Society, which occurred suddenly at his residence, Rosebank, Berkhamsted, on Thursday, the 14th inst. When Mr. Mawley called upon us only a few days ago on his return from a well-earned holiday, he appeared to be in his usual good spirits, and he was looking forward with eager anticipation to the Autumn Rose Show, which by a sad coincidence proved to be the day of his burial.

For about forty years he was closely associated with the inner workings of the National Rose Society. Just what that society owes to him will never be fully known, but it was everything to him, and he had the untold satisfaction of seeing it grow from a small association into the largest special floricultural society in the world. His association with Roses dates back a very long way. In 1875 he was growing Roses at Croydon, and two years later he became co-honorary secretary of the National Rose Society with the late Rev. H. H. D'ombain. Mr. Mawley took over the full duties of hon. secretary in 1905, a position he relinquished two years ago when he became president of the society he had served faithfully as secretary for thirty-seven years. In appreciation of his services to the National Rose Society the members unanimously bestowed upon him, in 1910, the Dean Hole Medal, a special distinction which is awarded from time to time as occasion may arise. He endeared himself to all who had the privilege of knowing him. In his younger days he was a keen exhibitor of Roses and Dahlias, and he was at one time president of the National Dahlia Society. Meteorology also claimed his attention, and he had at Berkhamsted the best private observatory in the country. He was a member of the Council of the Royal Meteorological Society, and for two years secretary, ultimately becoming president in 1904. In the same year the Council of the Royal Horticultural Society conferred upon him the Victoria Medal of Honour in Horticulture in recognition of his services. Readers will join us in tendering heartfelt sympathy to Mrs. Mawley in her bereavement.

ANSWERS
TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

RAISING CLEMATIS FROM CUTTINGS (*Colwyn*).—Clematis, species and varieties, can be raised from cuttings in the ordinary way. Take long shoots when the wood

at the base is beginning to get firm—say, about the end of June or through July—and cut them into lengths, each length bearing two sets of buds. Insert them in sandy soil in a close frame, where roots ought to be formed in the course of three or four weeks. Pot the plants singly as soon as rooted, and keep them in pots until they are vigorous enough for permanent planting or for placing in nursery quarters. It is also possible to root cuttings of soft shoots by placing them in a close and warm frame.

MOVING HERBACEOUS PLANTS (L. McM.).—A very large percentage of herbaceous plants may now be moved, that is, divided and replanted, with impunity. Irises, Delphiniums, Lupines, Pæonies, Christmas Roses, Pyrethrums, Campanulas and much besides that have finished flowering could be taken in hand at any convenient moment. For some—Pæonies and Christmas Roses, for example—September is the best month of the whole year. The thing to avoid in such work is that of replanting big clumps of such things intact. Small divisions, selecting always the more youthful portions of the clump, are infinitely to be preferred. Big clumps of many things planted without division are not infrequently a failure.

LILY POND (M. M. K. C.).—In the matter of construction we consider the extending wings somewhat out of proportion, and would be better if increased to a third of the width of the central part. The need for widening is greater when considered in conjunction with the proposed foot-wide ledges, which would only leave 1 foot of central space. If the idea of the ledges is merely the accommodation of aquatics preferring shallow water, these could be dispensed with altogether by reducing the depth of the winged parts to 15 inches or 18 inches. Or, by carrying out the widening suggested and retaining a uniform depth of 2½ feet over all, one or two plants of the moderate-growing odorata varieties of Water Lilies could be accommodated in addition to providing occasional marginal subjects to counteract the rigid formality that otherwise would be inseparable from the arrangement. In place of the continuous ledge, for which there would be little use, corner and occasional side pockets should be formed 1 foot deep and 1½ feet long, in which the double Sagittaria or other kind could be planted with, possibly, the Cape Pondweed (Aponogeton) floating out therefrom into the water. In addition we should favour crescent-shaped recesses instead of the acute right angles at the inner central parts, each of which, with the pocket arrangement above named, might contain something of ornament. If you will write us again when you have decided exactly what you will do, and give the colour of the Water Lilies preferred, we will name a suitable selection. There are now some brilliant colours in these flowers.

TREES AND SHRUBS.

RHODODENDRONS (Gilbert).—It is certainly advisable to remove the seed-vessels from Rhododendrons and Azaleas, but the work ought to be done as soon as the flowers fade, so that the exhaustive process of seed formation is prevented and the energy of the plant is directed into the formation of new shoots instead of useless seed. Plants can certainly be raised from seed. Collect the seeds in winter at a time when the seed-vessels are beginning to burst, and sow them in February, thinly, on the surface of sandy peat in pans or boxes. Cover each pan or box with a sheet of glass, and keep it shaded until the seedlings appear. When the second leaf can be seen, prick off the seedlings an inch apart in boxes, and stand them in a cold frame until large enough for nursery borders. Growth is rather slow for the first year.

ROSE GARDEN.

RAISERS OF ROSE AMERICAN PILLAR (Pergola).—The statement often repeated in papers and catalogues that this famous Rose was raised by Conrad is incorrect. The raisers are Conard and Jones Company.

NAME OF RAMBLER ROSE (C. H. R. H.).—We believe the Rose you describe is Goldfinch. Lamarque is a fine old Rose and is often found in old gardens, but it is rather tender in this country, which accounts for its seldom being seen. It is largely grown on the Riviera, and we can quite believe it is splendid in Madeira and South Africa.

PILLAR ROSES TO FLOWER IN SUCCESSION (W. D.).—The following Roses flower in succession and are likely to suit your purpose: Mrs. F. W. Flight, Sander's White, American Pillar and Dorothy Perkins. The last named and Lady Gay are so much alike that it is not necessary to have both. A rambling Rose with a very long flowering period is, Alberic Barbier. It blooms over a period of several months.

MISCELLANEOUS.

BOOK ON STORING FRUIT (Pomo).—Messrs. George Bunyard and Co., Maidstone, issue a useful book entitled "How to Make a Fruit-room on G. B. and Co.'s Plan," with photographs and illustrations. The price is 2s. 6d., post free.

PREPARING AND DRYING COLTSFOOT (F. E. R.).—The leaves of the Coltsfoot when used for smoking are dried in an open shed. They are hung up in small bundles, and free access of air admitted to all parts. A little artificial heat in damp weather is an advantage. Coltsfoot leaves are sometimes used for smoking in this country by agricultural people. It does not appear necessary to ferment the leaves.

NAMES OF FRUIT.—Mrs. I. C.—Apples: 1, Duchess of Oldenburg; 2, White Russet; 3 and 4, not recognised, probably local varieties or seedlings. Plums: 5, Monarch; 6, Pond's Seedling; 7, Cox's Emperor

SOCIETIES

THE NATIONAL ROSE SOCIETY'S AUTUMN SHOW

THE autumn exhibition of the society, held in the Royal Horticultural Hall on September 19, must be accounted a considerable success, both from the quality of the blooms and, generally, the competition. The finer displays were those arranged on the floor, their all-embracing variety and excellence meriting high praise. In addition to these, the larger classes on staging were finely presented, the exhibit from Peterborough being especially noteworthy. The gold medal Rose Christine, shown by Messrs. S. McGredy, Portadown, claimed everybody's attention. It is a great advance in golden yellow varieties.

For thirty-six blooms, distinct, Messrs. D. Prior and Sons, Colchester, were first, having, in a capital lot, good blooms of Nerissa (cream), William Shean, Lyon Rose, Grange Colombe, Candeur Lyonnaise (good white), George Dickson (very good), Frau Karl Druschki (silver medal) and Princesse M. Mertchensky (also silver medal), the last a lovely pink variety. Only one collection was staged.

For eighteen blooms, distinct, five collections were set up, Mr. George Longley, Rainham, Kent, taking the lead with a lot singularly fresh and beautiful. Charles J. Grahame, Freda, Maman Cochet and H. V. Machin were among the better blooms. Second, Mr. Henry Drew, Longworth, whose H. V. Machin, George Dickson and Mme. Louise Leroy were among good things.

For twelve exhibition Teas and Noisettes, Mr. George Longley, Rainham, led against five competitors, his finer blooms being Mrs. Foley Hobbs, W. R. Smith, Catherine Mermet, Maman Cochet and Alexander Hill Gray. Messrs. D. Prior and Sons, Colchester, were second, Mrs. Dudley Cross, Molly Sharman Crawford and Harry Kirk being of good quality.

For twelve perpetual-flowering decorative Roses in vases Mr. John Mattock was first, Louise C. Breslau (buff), Mrs. A. Hammond (pale pink), Marquise de Sinety (orange gold now), Mrs. D. Stevens (pure white), Mrs. G. Reid (cream and blush) and Ophelia (flesh pink), being very fine. This set was nicely arranged and distinctly named. Second, Mr. George Longley, Rainham, whose vases of Alexander Hill Gray (creamy yellow), L. C. Breslau, Rayon d'Or and Lyon were very good. Mr. Elisha Hicks was third, having a brilliant vase of the single crimson Princess Mary.

For twelve blooms of any Rose to be shown in a basket, Messrs. D. Prior and Sons, Colchester, were first with an admirable lot of Frau Karl Druschki, the blooms handsome and pure withal. Mr. Elisha Hicks, Twyford, was second with a capital basket of Candeur Lyonnaise.

For five baskets of cut Roses, Mr. Elisha Hicks, Twyford, led the way with a telling lot, his set comprising the lovely single crimson Princess Mary, Mrs. Dunlop Best (apricot yellow), Joanna Bridge (a huge Clematis-like cream and yellow semi-double), Lady Hillingdon, and Ophelia (one of the most popular varieties extant). The baskets were admirably arranged.

For five baskets of Polyantha or Pompon Roses, distinct varieties, Messrs. D. Prior and Sons, Colchester, were first, showing Jessie (crimson), Orleans Rose, Mrs. W. H. Cutbush (rose) and Mrs. Taft among their best. Messrs. Frank Cant and Co., Colchester, were second, showing Perle d'Or, Jessie, Ellen Poulsen and Orleans Rose very finely.

The class for twenty-four distinct varieties, Polyanthas and Pompons excluded, was among the most effective. Mr. John Mattock, Oxford, taking the lead in a good competition. The best vases were those of Marquise de Sinety, Old Gold, Rayon d'Or, Louise C. Breslau, Peggie (very beautiful creamy white), Trier, Simplicity, Harry Kirk, Mrs. H. Stevens and Lady Pirrie. Second, Messrs. Frank Cant and Co., Colchester, who had good vases of Rayon d'Or, Melody, Lady Pirrie, Old Gold, Mrs. Alfred Tate, A. R. Goodwin, La Tosca and Carrie (quite charming in peach and cream).

For twelve distinct varieties of decorative Roses, Mr. Frank Spooner, Horsell, Woking, was in the winning place. Here Cissie Earle, Mrs. Herbert Stevens, Rayon d'Or, Miss Dorothy Mocatta (semi-double cream and yellow), General Macarthur and Mrs. Alfred Tate were the best. The group was nicely disposed. Messrs. W. and J. Brown, Peterborough, were second, Lady Pirrie, Rayon d'Or, Ophelia and Duchess of Wellington being of fine quality. Mr. Elisha Hicks was third.

For a representative group of Roses staged on the floor, space allowed 150 square feet, four competed, the first prize, a gold medal and 40s. cash, going to Messrs. G. Paul and Son, The Old Nurseries, Cheshunt, for an admirable display, nicely arranged, Rayon d'Or was freely shown, also Ophelia, Lady Hillingdon, Miss A. de Rothschild (soft yellow), Mme. E. Herriot, Mme. Jules Bouche (creamy white of exquisite form), Mme. J. Dupuy, Constance (golden, an improvement on Rayon d'Or), Mrs. Edward Powell (fine scarlet and mildew-proof), Old Gold, Queen of the Musks (a Musk-scented Polyantha which is also of great charm) and La Tosca. Hobbies, Limited, Dereham, were second with a capital lot, in which standard and weeping Polyanthas were well shown. Snow Queen, Pharisæe, Lady Pirrie, Mrs. Andrew Carnegie, H. E. Richardson (deep red), Mme. E. Herriot, Mrs. Arthur Munt (ivory white), Lieutenant Chauré (fine red) and Grand Duchesse de Luxembourg were among many good things. Mr. Charles Turner, Slough, was third, associating with many good Roses stands of Acers, Prunuses and other dark-leaved subjects. Of the Roses shown, Lady Ashtown, Caroline Testout, Louise C. Breslau,

Lady Hillingdon and General Macarthur were the finer. A margin of Jessie, Orleans and other Polyantha sorts and the intermingling of Asparagus Sprengeri gave a very pleasing effect to the whole. Mr. E. C. Notcutt was fourth.

For a representative group of Roses, arranged on staging in a space 18 feet by 6 feet, the Rev. J. H. Pemberton, Havering-atte-Bower, Romford, took first prize with an admirable lot, largely composed of varieties of his own raising. Of these, a great centre was formed of the single white Queen Alexandra, while Danaë, Clytemnestra, Callisto (canary yellow), Moonlight and Daybreak (a pale Callisto) were noticeable and good. Others of note were Rayon d'Or, Mme. Jules Bouche, Comtesse du Cayla, Lady Pirrie and Gustave Regis. Florence Pemberton was also fine. Messrs. W. and J. Brown, Peterborough, were second, having an imposing display in much diversity. The variety and excellence of the Roses in this group could hardly be excelled. Lady Hillingdon, Duchess of Wellington, Rayon d'Or, General Macarthur, Effective, Mrs. H. Stevens, Souvenir de G. Prat, Lady Pirrie, Mrs. Alfred Tate, La Tosca and Mme. E. Herriot were some of the finest in a collection of 200 varieties, and which we have no hesitation in saying should have received first prize.

For a representative group of cut Roses, space permitted 20 feet by 4 feet, Messrs. B. R. Cant and Sons, Colchester, were deservedly given the first prize, their groups of Rayon d'Or, Chrissie Mackellar, Irish Fire-flame, Lyon Rose, Edu Meyer, Lady Hillingdon, Harry Kirk, General Macarthur and Mme. E. Herriot being particularly fine. Messrs. Jackson and Sons, Woking, were second, Mr. W. Easlea, Leigh-on-Sea, being placed third.

For thirty-six distinct varieties, on a space not to exceed 14 feet by 3 feet, Messrs. F. Cant and Co., Colchester, were the only exhibitors, staging a very fine lot of blooms. Notable varieties were Rayon d'Or, A. Hartman (red), Mme. E. Herriot, Alexander Hill Gray, Snow Queen, Lady Hillingdon, British Queen (fine white), Ecarlate (rich red), Mrs. Amy Hammond (flesh), Melody (yellow), Mrs. George Shawyer, Mrs. Foley Hobbs, Sunburst and Mme. Melanie Soupert, all being finely shown.

AMATEURS.

Eighteen blooms, distinct varieties; First, Mr. W. Sunderland, Driffield, Yorks, in whose collection Grace Molyneux, Snow Queen, Lemon Queen and Caroline Testout were good.

For nine blooms, distinct, three entered, Mr. S. W. Burgess, Tonbridge, taking first prize with excellent examples. Lyon Rose, Lady M. Ward, J. L. Mock and Florence Forrester (white) were very good. The Rev. F. R. Burnside, Great Stamburgh, Essex, was second, in whose lot Hugh Dickson was awarded the silver medal.

For twelve distinct varieties, space allowed 6 feet by 3 feet, Mr. H. R. Darlington, Potter's Bar, was first, his best being Mrs. E. Powell, Red-Letter Day, Mrs. E. G. Hill and Antoine Mari (a most shapely and beautiful Rose in peach and ivory white).

One basket of Roses, one variety: First, Miss B. H. Langton, Hendon, who staged Trier very finely.

For a bowl of cut Roses, Mrs. Courtney Page, Enfield, took first prize with Old Gold, Mrs. Williamson, Canterbury being second.

For a basket of cut Roses, Mrs. L. Colston Hale was first with a fresh exhibit. Mrs. Courtney Page being second.

For a bowl of Roses nine entered, Mrs. Williamson, Canterbury, being awarded first for Richmond with foliage of Rosa rubrifolia; second, Mrs. Alex. Robinson, Carshalton, with an unnamed variety.

For a dinner-table decoration of Roses, against ten competitors Mrs. L. Colston Hale, Warminster, was awarded first with a delightful harmony in rose pink and yellow, the varieties being Isobel and Golden Emblem, a lovely arrangement for which no praise is too high; second, Mrs. Tisdall, Woodford Green, for a light and graceful arrangement of Ophelia with sprays of Rosa rubrifolia. Mrs. A. C. Brown, Reigate, was third, employing Lady Hillingdon very effectively.

For a collection of Rose hips, Mr. J. C. Allgrove, Middle Green, Langley, Slough, was placed first, having Rosa Fargesii, R. setipoda, R. Moyesii and several varieties of R. rugosa; second, Messrs. B. R. Cant, Colchester, whose Sheilaigh Wilson, with green hips, was very distinct.

GOLD MEDAL ROSE.

Christine (H.T.).—Rich golden, with beautiful hard, glossy foliage; a lovely Rose in every way. It will undoubtedly be warmly welcomed by market growers, professionals and amateurs. From Messrs. S. McGredy and Sons, Portadown, Ireland.

National Sweet Pea Society's Trials, 1917.

The National Sweet Pea Society propose to hold the novelty trials of Sweet Peas as usual in 1917. Anyone desirous of having Sweet Peas tried in connection with these trials must let the seeds for trial be in the hands of the secretary not later than September 30, 1916. For further particulars apply to the secretary, Mr. Henry D. Tigwell, Greenford, Middlesex.

* * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

No. 2341.—VOL. LXXX.

SEPTEMBER 30, 1916.

NOTES OF THE WEEK

IN many gardens there is still a good show of pods on the Runner Beans. We know that at any time now they may be destroyed by frost, but they can be saved if the precaution is taken of having ready any pieces of old garden netting to throw over the tops of the poles and to hang a little way down the sides. A few long Pea-boughs put up against the Beans under the nets, or any such device, is also a help—anything to “break the frost” as the old people say, and, indeed, one can hardly better describe the beneficent action of some such slight protection.

Staking Dahlias.—The American Dahlia Society, like most other American societies, has at its back one of the State colleges, which runs a series of trials, besides making investigations on disease. Professor Hall, who handles the trials, recently issued a bulletin and dealt with the question of staking. His method is ingenious. Two ordinary ceiling laths are pushed into the soil on either side of the plant and tied together at the top. The result is a stiff, light and handy style of stake that costs little yet looks neat, as well as providing a sure protection to the plants when quite small.

The Silvery Pampas Grass.—The waving silvery plumes of the Pampas Grass (*Gynerium argenteum*) make one of the most pleasing features of the garden in autumn. This year the plumes seem later than usual in coming to perfection. Some varieties are far more decorative than others, and the only way to ensure the best is to make a selection at the present time. If the plumes are required for indoor decoration, this is the time to cut them.

Buddleia variabilis and Butterflies. One of the great charms of *Buddleia variabilis*, especially the variety *magnifica* (illustrated on page 478), is that the flowers afford a great attraction to butterflies. Dr. Botting Hemsley, in a recent letter, says: “The Red Admiral butterfly is a common visitor to the *Buddleia*, and the Peacock an occasional one. Neither of these butterflies has been observed on any other plant in my garden.” We have also observed Painted Lady and Small Tortoiseshells flitting around and settling on the blooms of the variety *magnifica*, which, by the way, is the best of these *Buddleias*. Our butterflies are so greatly attached to the *Buddleia* that we are almost led to wonder how they fared before the introduction of this Chinese shrub.

The Gardens of the Fatherland.—One little item in “The Memories of the Fatherland,” by Miss Anne Topham, is of interest to those of us who love gardening. The authoress says the real German has a love for the beauties of Nature, yet in all her travels she never found one well-kept garden. Whereas the love of gardens is almost universal in England, and it is a sign of one of our most pleasant characteristics, the Germans’ entire lack of garden love is equally significant. Miss Topham tells of a visit she paid to a large country house near Danzig, and to her the garden was nothing but a tangled wilderness.

An Old Bulb Fancier.—James Justice, F.R.S., one of the Principal Clerks of Session in Scotland, was what we to-day would term a “florist,” whose modern parallels would have been either the late James Douglas or the late Rev. F. D. Horner. He wrote “The Scots Gardeners’ Director” in 1754, of which a second and posthumous edition was published in 1764. The Hyacinth was his special favourite, and he gives

a long list of all the best varieties, with full descriptions of their flowers and habits. It is most interesting to note that the good or bad seed-bearing properties of almost every one are carefully noted, exactly in the same way as we find the same qualities mentioned with regard to the different varieties in a modern up-to-date Daffodil catalogue. The publication of Justice’s book and his enthusiasm for the Hyacinth did much to make its culture very popular in Britain.

The Sweet Pepper Bush.—During September *Clethra alnifolia* and the two varieties *paniculata* and *tomentosa* are showy shrubs growing some 4 feet to 6 feet in height. Allied to the Heath family, it is not surprising to find they thrive best in a peaty soil. Cuttings made of the young shoots root readily in a frame with a little bottom-heat during late summer. The flowers are white, deliciously fragrant, and borne at the ends of the shoots in narrow racemes up to some 6 inches long. The variety *paniculata*, as the name suggests, has a branched inflorescence, and the variety *tomentosa* is downy and flowers a fortnight later. Natives of Eastern North America, these Pepper Bushes are said to have been first introduced as long ago as 1731, though even to-day they are grown in few gardens.

Can Hyacinths be Raised from Seed in Britain?—As the proof of every pudding is in its eating, there is no doubt that the answer to the above question is in the affirmative. James Justice, in the “British Gardeners’ Director,” tells us how he raised seedling Hyacinths which equalled the best Dutch varieties. He was an enthusiast, and wrote, “we might vye with the Dutch Florists in raising many beautiful seedlings of this flower in Britain to the saving great sums of money which are annually sent out of the kingdom to purchase these flower-roots.” His procedure is, however, so complicated and lengthy that if it, or something like it, is a *sine qua non* for the production of good Hyacinth bulbs, seedling raising is put quite out of the question as a business proposition. It would be of considerable interest if any readers with practical experience would tell us how they have fared in their attempts.

*** Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their news-agent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.



WAVING PLUMES OF THE SILVERY PAMPAS GRASS.

ROYAL HORTICULTURAL SOCIETY'S TRUE WORK*

A PAMPHLET is being widely distributed in which the writer deals, with some severity, with the scientific and educational work that is being carried on in the Society's Gardens at Wisley. Though there may be points on which some horticultural authorities are not in agreement with all that is being there undertaken or attempted, yet there can be no doubt that much of the work is extremely helpful. The usefulness of the trials, whether of flowers or vegetables, cannot be denied. The fact of bringing together the plants or produce of seeds of many growers enables a careful and just comparison to be made in the one place under conditions which are identical—a comparison that could not be possible by visiting, as a Life Fellow suggests, a number of trial grounds in different parts of the country, where the same

agree with the Secretary's letter of regret that a Life Fellow, who has evidently thought deeply and worked practically, should leave the ranks of the society, especially at a time when those ranks are seriously depleted by actual losses in the war and by the many who are no doubt forced to an unwilling resignation by cruel financial pressure. Returning to the scientific department at Wisley, we hope, now that it has been established, it will be considered of sufficient importance to merit the whole and undivided attention of its staff of experts and receive full encouragement from the Council and members of the society.

There is much in the latter part of the pamphlet with which all will agree, such as what is said on the evils of grafting where grafting is not needed; on the desirability of fruit trees and shrubs being either on their own roots or, if grafted, grafted on something closely akin; and on the very desirable reduction in the numbers offered in catalogues of both fruits and vegetables. If we mistake not, this reduction of kinds is just one of the aims of the Wisley trials, for in the reports of the trials



FLOWERS AND BUDS OF THE MACARTNEY ROSE.

varieties would not be brought together and where, many of the conditions being widely diverse, no fair comparative judgment could be arrived at. The trials at Wisley of flowers also, such as Pansies, Phloxes and Dahlias, have proved most helpful to amateurs, who have gone round, notebook in hand, making careful memoranda of such flowers as Pansies, for instance, sent from nurseries as widely apart as Middlesex and Midlothian.

Surely a Life Fellow deals less than fairly with the society's work of scientific investigation—work whose purpose is to tell gardeners the nature of the many insect and fungoid pests that assail cultivated plant life and the ways of their prevention or destruction. Does he also do justice to the society by ignoring the value of the fortnightly shows and lectures, when the whole of the public that is interested in horticulture may see all that is best to be had for gardens and learn much that is distinctly useful? We cannot but

we constantly see notes to the effect that some supposed new variety is identical with an older one.

With regard to the training of gardeners, a Life Fellow says—no doubt rightly—that the best way of learning is that of some years' apprenticeship; but this means passing through several gardens, and much must depend both on the good will and the ability to teach of those under whom a young man may be.

We can thoroughly agree with the wisdom of a Life Fellow's remarks on the keeping apart of the business of nurseryman and landscape gardener. A nurseryman is a grower of plants; a landscape gardener must needs be an artist with a totally different kind of education and training, and though he must have a good knowledge of the uses of plants, shrubs and trees, yet his business is one that is quite apart from that of their production and multiplication. The pamphlet concludes with some stimulating remarks on the cooking of vegetables and the best kinds of Apples.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Everlasting Peas.—In the notes on *Lathyrus* (Everlasting Pea) which have appeared lately in *THE GARDEN*, there has been no mention of *L. rotundifolius*, the orange red one, which is so seldom seen. It is the most delightful colour, and so far superior in this way to the hideous magenta one usually grown that it is a pity it is not better known. It and *L. latifolius* White Pearl are both most useful for cutting.—A. LA T.

The Macartney Rose (*Rosa bracteata*).—It was with great pleasure that I read the little note on this delightful Rose in your issue of September 23, page 461. To my mind it is one of the finest of all evergreen climbers, as it is really much hardier than is generally supposed, and will clothe a wall to the height of 20 feet or more in a few seasons. Apart from its fragrant white flowers and golden stamens, the flowers are so pretty in the bud state, a point not mentioned by your correspondent. Each bud looks like a Filbert, being covered with deeply cut, downy bracts. It is now flowering well, and, given favourable weather, will continue to do so for weeks to come.—WAYLAND.

Tender Shrubs on North Walls.—In the issue of September 16 is an article on tender shrubs on north walls. In it "H. C." quotes a note of mine on *Lapagerias*. It may be of use to some of your readers if I give a list of other shrubs and climbers which do well here on, or do *only* well on, north walls. They are *Berberidopsis corallina*, *Senecio scandens*, *Solanum crispum*, *Actinidia chinensis* (male and female), *Ampelopsis* (*Vitis*) *Henryi*, *Periploca græca*, *Tropæolum speciosum* (best on the north side of a tall Box or Yew hedge), *Buddleia Veitchiana*, *Azara microphylla*, *Akebia lobata*, *Lardizabala biternata*, *Cocculus carolinus*, *Berchemia volubilis*, *Calycanthus floridus*, *Crinodendron Hookeri*, *Mutisia decurrens*, *Actinidia arguta*, *Escallonia macrantha* and *Celastrus scandens*.—L. H., Nuneham Park, Oxford.

Viola arborescens.—Last winter I wrote to you to know if any of your readers could tell me of success with this plant in England. Mr. Hay of Greenwich Park was good enough to send me some seedlings. When they arrived I thought they could not be of the plant asked about. They have since flowered, and I have come to the conclusion that they are *V. Nuttallii*. Mr. Hay said he gave away many other plants to your readers. I wonder if any of them can tell me of their experience.—W. HERBERT COX.

Underground Storage of Potatoes and Apples.—"Anne Amateur" need have no fear but that the Potatoes she proposes burying underground will be quite fresh and as eatable as newly raised ones. It is not a new practice by any means, but it never appears to have been largely adopted, only a few people here and there having so treated an occasional lot. I presume it has not been thought worth while; not sufficiently remunerative, perhaps. "Anne Amateur" mentions the use of tins. I have heard that the receptacles should be wooden boxes. What does not seem to be known so much about is that Apples can be so kept. My father told me that if Apples were put in a wooden box with the lid securely fastened down and buried a foot in the ground, they would remain sound and fresh for a long period; whether

* "The Royal Horticultural Society's True Work," by a Life Fellow of the Society. (Simpkin, Marshall and Co.; price 6d.)

longer than their usual keeping-time I do not now remember, but I hope later to experiment for myself. It would be interesting to hear if any reader has tried the plan, and if so, what is the effect on the keeping quality of the fruit so treated.—C. T.

Hydrangea on the Shores of Lake Maggiore.—I am a subscriber to your interesting paper, and think it might interest you to see the enclosed photograph of a single plant of Hydrangea that grows in my garden on this island. It is several years old, and last year was not pruned, the result being more flowers this season than it has ever had before. Every twig had its truss of blossom, which in former years was not the case. I do not know this autumn whether I ought to prune it. I fear it may exhaust itself with this wealth of bloom. I would be grateful if you could give me the botanical name of the green herb Balm of Gilead, which is somewhat like Verbena.—VITTORIA DI TEANO, Isola San Giovanni, Pallanza, Lago Maggiore. [We are indebted to Princess di Teano for this note and the beautiful picture accompanying it. The error of over-pruning in former years is here clearly demonstrated, but a certain amount of pruning is necessary as a rule in order to induce the growth of strong shoots, on which the best heads of bloom are borne. In English gardens Hydrangeas are liable to injury by frosts in the winter, and it is only in favoured spots that it will attain anything approaching its perfection on the shores of Lake Maggiore. *Cedronella triphylla* is the botanical name of the Balm of Gilead, although it was formerly known as *Dracocephalum canariense*, under which name it is still known in many gardens. This plant, cherished for the sweet odour it emits from its leaves when gently rubbed, belongs to the Natural Order Labiateæ.—ED.]

Giant Galegas and Chrysanthemums.—It is kind of "T. A. W." to recommend the giant Galegas. I have not seen them. I can imagine they might be effective in a large garden, at considerable distance, but I much doubt if I should care to grow them in preference to the dainty old-fashioned ones. Mere size never appeals to me in flowers any more than in vegetables. In this connection I here confess one of the many misdeeds of my youth. Our gardener's delight was to grow great solitary mops of Chrysanthemums on a straight stalk, whereas I desired graceful sprays to wear and to decorate the house. So one autumn when he had just housed his "'Mums," I, like the lady in an old ballad, "took a little knife that was both sharp and keen," and, slipping into the greenhouse unobserved, I very carefully—er—ah—eliminated the crown buds from all the white Chrysanthemums. The gardener did not find this out for a few days, and I began to hope he would think they had "gradually got so." But one day he caught me in their vicinity, and in awful tones the much-tried man said: "Miss Anne, I puts up with a good many of your

tricks, as you knows, but if you meddles with my 'Mums I shall 'ave to speak to yer Ma." However, I had privately confessed to my mother (and been duly reprimanded), and she was so well pleased a little later in November with the many graceful table decorations I produced as a result of my daring misdeed that to the gardener's great disgust, she decreed that next year I might treat the other Chrysanthemums in like manner, leaving only about a dozen plants for the gardener to grow as mops for his personal pleasure in the greenhouse.—ANNE AMATEUR.

Scentless Musk.—With reference to Mr. A. G. N. Launder's note on this in your issue of September 9, he may be interested to know that the question of the plant becoming scentless occupied the attention of the Linnean Society at their concluding meeting of the session in June last, when a note was read from a lady member residing

Mimulus moschatus there can be no doubt, the determination having been confirmed at Kew.—JOHN R. JACKSON, *Claremont, Lympstone, Devon.*

Auricula Solomon Page's Champion.—In your remarks in THE GARDEN of August 12, page 392, you say that "Mr. C. Harman Payne in THE GARDEN of August 5, page 378, without reference and speaking from memory, makes the interesting statement that Solomon Page's Champion in Auriculas is probably the oldest surviving florists' flower. The interest would be enhanced if the date of introduction were given." In the *Gardeners' Magazine*, April 29, 1882, there is a list and description of 275 Show Auriculas, and among them is Page's Champion, raised in 1841.—WILLIAM BADCOCK, 43, *Eastern Avenue, Reading*

American Gooseberry Mildew.—The destructive nature of this scourge induces me to refer to

it once more. If the bushes are affected, no time should now be lost in pruning back the young wood, collecting it in a sheet, and carrying it to the fire-heap and destroying it at once. The surface soil underneath the bushes should also be scraped off and thoroughly charred. Any infested fruits that may have dropped will thus be got rid of, thereby reducing the chances of a recurrence next season. In a somewhat belated circular-letter, the authorities are now recommending a strong spray of lime-sulphur at this season. This is sound advice and should be carefully observed by all growers having the disease on their bushes. We are, however, still approaching the problem of stamping out this mildew with somewhat half-hearted measures. The periodical visits of Inspecting Officers may be a means of spreading instead of repressing it by passing from the examination of a badly infested area to a garden which is quite clean, and carrying the mildew on their clothing. There is also the inconsistency of the Order to tip and spray, and in some instances the advice is to destroy the bushes in one's garden, while bushes by the wayside and in woods are left untouched to distribute the mildew again and neutralise all



AN UNPRUNED HYDRANGAEA IN AN ISLAND GARDEN.

at Torquay stating that the plant had been observed by her for several years in running water in the neighbourhood of Okehampton, on the borders of Dartmouth. The president of the society spoke of the fact that under cultivation the plant had quite lost its original Musky smell, and that it would be interesting to know whether this escape had retained it. On obtaining specimens of the plant from the actual source referred to, where it was found growing fairly abundant in a running stream, it was found difficult to decide whether any trace of the scent remained. Some of those to whom it was submitted thought there might be a slight reminder, while others decided there was none. So that, whether under cultivation or otherwise, the question of scent still remains one of doubt. That the plants from the neighbourhood of Okehampton are the true

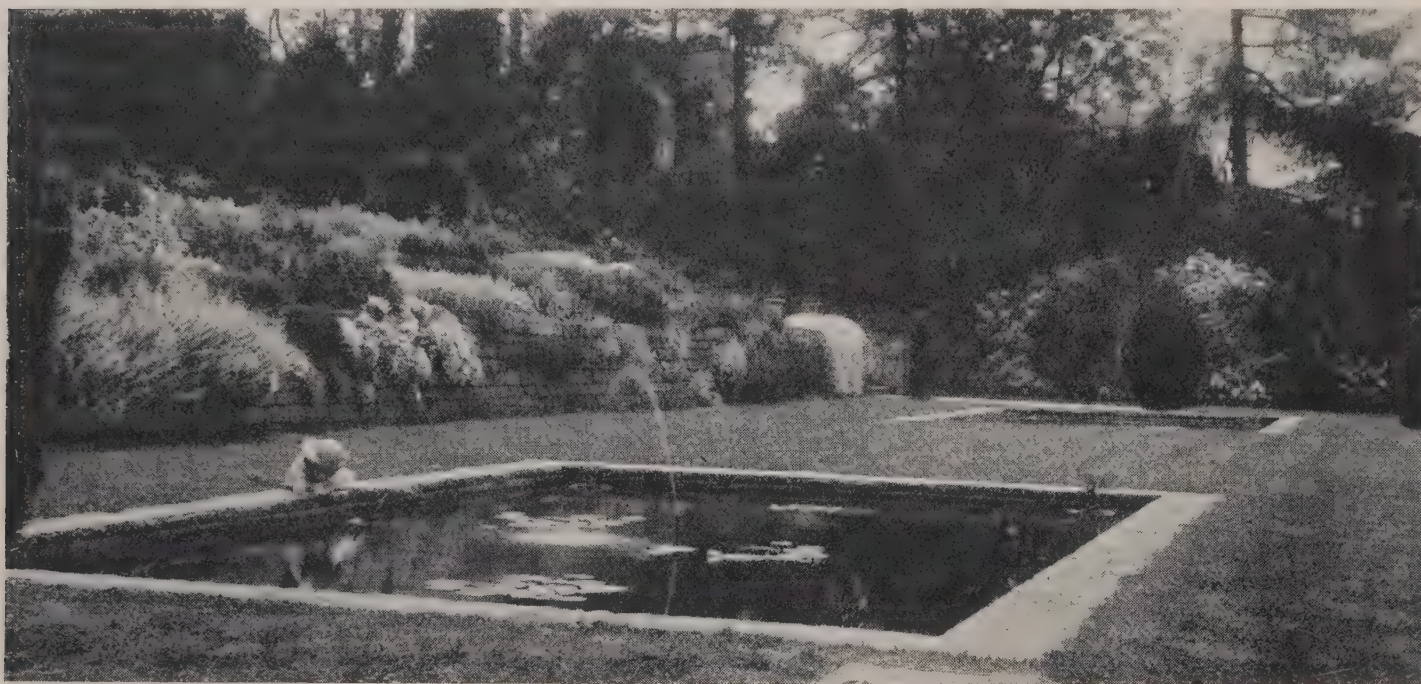
attempts to get rid of it. The liver of sulphur spray recommended some years ago is of little use in checking the disease, and those who faithfully followed the instructions for its application will, I am afraid, have very little to show for the trouble and expense they incurred. Let those who have been troubled with the disease this season follow out the above instructions and begin early next season, just before the leaf-buds commence to burst, to spray with lime-sulphur and continue it every three weeks until the fruits are the size of large Peas, and they may be fairly certain of securing a crop of clean, ripe fruit. Do not spray while the bushes are in flower, and remember that some varieties will not stand a spray strong enough to arrest the mildew; but there are plenty of good sorts that take no harm from its application.—THOMAS WILSON, *Glamis.*

BERRIES

By EDWARD H. WOODALL.

IN these alpine regions around Chamonix, where the winter is severe though the short summer is hot, there are no Rambler Roses to be seen in gardens, and the berry-bearing shrubs and trees take their place so happily that I am not at all sure we may not take a hint or two for ourselves. The most surprising, of course, to English eyes is the brilliance and abundance of the red-berried Elders, which at

I have seen a beautiful effect made by a pleached alley of Mountain Ashes very cleverly pruned and trained so as to be full of fruit and yet tied down to make a shelter from the sun. It is a thing that needs renewing after ten or twelve years when the trees get too woody and old, but at its best it is as good a thing as any Rambler pergola when *Polygonum baldschuanicum* is trained up through it and its feathery panicles of flower mingle with the clusters of the Mountain Ash. I have never seen *Clematis Flammula* here, but if that flowers in time it would be a delightful addition with its sweet scent superadded. Poly-



FRANT COURT: THE SUNK TERRACE.

first sight look like some subtropical *Hibiscus* or any other scarlet-flowered shrub. When grown on a north aspect and the shoots thinned out as one would a Raspberry, the long fishing-rod shoots, laden with their clusters of brilliant red berries, hang over in the most picturesque way, and are so beautiful that one regrets our variable climate in England does not permit them to show their full beauty. In Scotland and the North of England I have seen them fruiting, but never in the least degree like these. The fact that the finest berried specimens grow where no ray of winter sun can touch them, and where they are kept dormant till some time in the month of May or even later, as was the case this year, is eloquent of their needs, and shows that only in the coldest and most alpine regions of England are they worth planting for their berries. Perhaps some people can say they can grow them well, but thinning out the long shoots each autumn is an important factor.

I have said there are no Rambler Roses to be seen, but there are many pergolas and pleached alleys—very necessary in hot summer days such as we have had for weeks—and the clever way in which the Weeping Ashes are trained, and more particularly the Mountain Ashes, is worth mention. Perhaps the light granitic soils cause a more vigorous growth, but the effect is more like *Wistarias* than Ashes, so long and slender are the shoots. Standard Mountain Ashes are planted in the rear to give brightness and colour at intervals and their clusters of berries are now in great beauty. Two common things, yet the combination and suitability to the surroundings and the climate make it worth mention. In one or two instances

gonum baldschuanicum, therefore, and Mountain Ash is a combination I shall hope to copy in the North some day, and I think others may be tempted to try their hand at it also.

At a considerable height up the mountain side on dry, sunny knolls among the Fir trees, the dwarf bushes of the Bear Berry (*Arctostaphylos Uva-Ursi*) are covered with their pretty berries in all tints of red, rose and creamy white as they first begin to ripen, and are delightful things to gather and bring down, so long do they last and so ornamental in bunches with their small and glossy leaves. To my surprise I have never come across one single soul who knew what they were, yet they are as common in the North of England as they are here, though never so finely in berry nor so large in the individual fruit. The Bear Berry would certainly be worth planting in any Heath garden if it will behave in the same way in England, and it evidently lasts for weeks as an ornament. It grows far higher up than the Bilberry and likes a drier soil, yet it is so hardy that it ventures down quite low in the valley, though it is shorn of its especial beauty of growth and berry, so it must be difficult to kill on granitic soils at least.

ROSE PRINCESS MARY

THIS brilliantly coloured single Rose is wonderful in its freedom of flowering. My second crop of blooms has been much larger than the first, and now the plants have set a full crop of hips. For cutting this is a gem. The blooms are borne on stiff, erect stems in clusters. The foliage does not show the slightest sign of mildew. E. M.

THE GARDEN AT FRANT COURT, SUSSEX

By GERTRUDE JEKYLL.

ASITE on a steep hill is always interesting, and, though it necessarily presents some difficulties, it also offers opportunities for ingenious invention and adaptation. Before the garden was altered to its present form the pleasure ground consisted of range after range of featureless and uninteresting turf slopes, with paths going straight down the hill and flights of stone steps at necessary intervals. In the new arrangement the steps were accepted as fixed points, and it was evident that a good deal of terracing would be desirable. In more than one case the very steep gradient necessitated terraces in pairs running close together, a path and narrow border being all there was space for between the foot of one retaining wall and the crown of the one next below it. Where the slope was a little easier and one might have a level of a little over 40 feet, the plan was varied by having a wide plat of turf, with three rectangular tanks for Water Lilies spaced along the length. The retaining walls, of a good local stone, were built "dry"—that is to say, without mortar—for planting in the joints. In every case, above each wall there is a narrow border. Borders

4 feet to 5 feet wide were as much as the space allowed, but it was enough to give space for the planting of small bushy things, such as garden Roses, hardy Fuchsias, Lavender, Rosemary, *Olearias* and so on, so that the low shrubs form a living parapet and are not only interesting in themselves, but give a sense of security. There is another advantage in having a border immediately above a planted wall, so distinct an advantage that such an arrangement should always be made if possible. It is that it gives the opportunity of making better harmonies of form and colour, the wall plants and the top border plants being grouped as one. Thus, if a scheme of grey and purple is desired, the top border is planted with bushes of Lavender of both the large and the smaller kinds, with a bold group of *Echinops* and with *Clematis Jackmannii*, not trained stiffly up a post, but informally over strong Pea-sticks. Then the top edge of the border and some of the upper courses of the wall itself have a bold patch of the grey-leaved *Santolina*, followed by cascades of *Cerastium* and Rock Pinks, with *Stachys* and pink-flowered *Stonecrops*. Earlier in the year the grey-leaved plants are accompanied by *Aubrietia* and dwarf *Phloxes* of pink and pale lilac colouring. It is made a rule, whenever it is possible, to plant the top edge and the wall together, the better to get size and dignity and the impression of some definite intention.

Below the tank terrace the same difficulty of the steep slope again occurred, but it was desired to get some feeling of level and repose, and also to provide a possible tennis lawn. It could only be done by cutting deeply into the bank above and building a 6-foot retaining wall, returned at

both ends and dying out at the middle level, with a portion of the steep bank left above, and carrying the soil out over the lower ground with a still higher retaining wall which shows from below as a rectangular bastion the level of this portion being fixed by a fine Oak tree beyond the western end.

Below this the ground is no longer terraced; it is only traversed by turf paths set out at easy gradients and passing diagonally from point to point where access is desired. The greater part of the ground is left in rough grass, in which there are informal thickets of Rambling Roses of the wilder kinds and clumps of bushy Roses, such as Sweet Briar, Scotch Briars and Rosa lucida. Towards the lowest and coolest part of the slope there are careful plantings of Azalea and Kalmia. The illustrations show the new garden not yet two years planted.

THE CHARM OF BOOKS AND GARDENS

BY C. HARMAN PAYNE.

TWENTY-SIX years ago an old acquaintance of mine who has spent his life in missionary work in China, knowing that I was much interested in the Chrysanthemum, sent me a copy of an old Chinese book entitled "The Flower Mirror," together with an English translation of that part of it which relates to the Chrysanthemum. It must have been an important book on the subject, because in 1900 a French author, M. J. Halphen, published a translation of it under the title "Miroir des fleurs: Guide pratique du jardinier amateur en Chine au XVII. Siècle."

My missionary friend says the book was written by Ch'eng-Fu-iao of Hu-nan in 1783. Whether it was an original work or a re-edition of a previous writer I do not know, but the query arises because M. Halphen speaks of it as a seventeenth century work. The question for present purposes is immaterial. My friend's date is confirmed by Giles in his "History of Chinese Literature," and there it must stand. I draw attention to the book because I know that there are many readers and even contributors to THE GARDEN who will greatly appreciate some of the sentiments expressed by this old Chinese author. Mankind, after all, in spite of differences of age, race or climate, has something in common. And this something is very often the delights of the garden and of literature.

It would be easy to name a few prominent horticulturists like the Rev. Joseph Jacob and others who will greatly appreciate the sentiments expressed, not by "this heathen Chinese," but by a man who evidently experienced the same delights as some of us "outer barbarians" do to-day.

Giles says: "In 1783 Ch'en Hao-tzu, who lived beside the

western lake at Han-Chow, and called himself the Flower Hermit, published a gossip little book on gardening and country pursuits, under the title of 'The Mirror of Flowers.' It is the type of a class often to be seen in the hands of Chinese readers. The preface was written by himself: 'From my youth upwards I have cared for nothing save books and flowers. Twenty-eight thousand days have passed over my head, the greater part of which has been spent in poring over old records, and the remainder in enjoying myself in my garden among plants and birds.'"

Is not that a delightful confession, and am I not right in saying that our friend Mr. Jacob and others like him whom we could name, but do not wish to disturb their modesty, can appreciate this delightful old Chinaman's calm content?

Ch'en Hao-tzu goes on to say: "People laugh at me and say that I am cracked on flowers and a bibliomaniac, but surely study is the proper occupation of a literary man, and as for gardening, that is simply a rest for my brain and a relaxation in my declining years."

People have said the same of me. There is nothing new under the sun, and probably no such thing as original criticism. Perhaps they may have said it of other literary contributors to THE GARDEN; but what matters?

"What," continues our Chinese author, "does T'ao Ch'ien say?"

"Riches and rank I do not love,
I have no hope of heaven above.

"Besides, it is only in hours of leisure that I devote myself to the cultivation of Flowers."

For the information of the reader I may here state that T'ao Ch'ien is the same person as T'ao-Yuan-Ming, a very celebrated cultivator of the Chrysanthemum who lived in A.D. 365-427,

and of whom I gave some particulars in my lecture on "The Golden Flower" before the National Chrysanthemum Society in October last.

Giles also tells us that Ch'ien Hao-tzu then runs through the four seasons, showing how each has its special charm. He then proceeds to deal with times and seasons, showing what to do under each month, precisely as do our own gardening books; and the reader lays down the book feeling that the writer is not far astray when he says, "If a home has not a garden and an old tree, I see not whence the everyday joys of life are to come." Nor, it may be added, do some of us.

NOTHING NEW UNDER THE SUN!

"SEEDTAPE seeds are enclosed in a specially prepared paper tape impregnated with a special fertiliser. The paper, like a wick, draws moisture to the seeds, which are correctly spaced and germinate early." So runs an advertisement in THE GARDEN of September 16. A few minutes after reading this I pick up the Hon. Mrs. Evelyn Cecil's "History of Gardening in England," and on page 97 find a quotation from Thomas Hill's "Gardeners' Labyrinth" (1608), wherein he gives a quaint method of planting a hedge. The gardener is to collect the berries of Briar, Brambles, White horn, Gooseberries and Barberries, steep the seeds in a mixture of meal, and set them to keep until the spring in an old rope, "a long worn roape . . . being in a manner starke rotten. Then, in the spring, to plant the rope in two furrows, a foot and a half deep, and three feet apart. . . . The seeds thus covered with diligence shall appeare within a month, either more or less." Am I dreaming, or is there truly nothing new? The methods of these old-time gardeners were rather quaint, but apparently they are worth following. W. D.



FRANT COURT: THE TENNIS LAWN.

BUDDLEIA VARIABILIS

By W. BOTTING HEMSLEY, V.M.H.

AMONG the numerous beautiful Chinese plants described by me during the last forty years, none has given me greater pleasure than the *Buddleia* which I described in the *Journal of the Linnean Society, Botany XXVI.*, page 120 and gave the name of *variabilis*, in 1889. The description was drawn up from a long series of dried materials collected by Professor A. Henry in the mountains of Ichang, Patung, and Nanto in the Province of Hupeh, and by the Rev. E. Faber on Mount Omei, Szechuan, at an elevation of 6,000 feet. The specimens presented a considerable range of variation in foliage, but I detected no differential characters that I considered of specific importance, and I did not attempt varietal classification from dried specimens.

According to Nicholson's "Dictionary of Gardening," *Buddleia variabilis* was introduced into this country in 1896. The result was a progeny of varieties of very unequal merit from an ornamental standpoint, several of which received names. *B. variabilis* var. *Veitchiana* (1902) was perhaps the first published, and there is a figure of it in the *Journal of Horticulture*, 1902, page 381. Whether *B. Hemsleyana*, published in 1903 as a distinct species, really merits that status is doubtful. Other acknowledged varieties of *B. variabilis* are *Wilsonii* (1904), *magnifica* (1905), *superba* (1908), *gigantea* (1910), *amplissima* (1911), *grandiflora* (1912), *lilacina*, *perfecta* and *rosea* (1912). These varieties were brought out

or raised by James Veitch and Sons, V. Lemoine and Son and the Hon. Vicary Gibbs, and differ, more or less, in habit, size and shape of inflorescence, and size and colour of the flowers.

I do not pretend to be able to distinguish all or any of these varieties, but most of them are very beautiful when well grown, and it is a matter of taste which is the most attractive.

The foregoing particulars are a prelude to a brief account of my experience and experiment in cultivating *Buddleia variabilis*, which in Nature is a vigorous, much-branched shrub, but under artificial conditions it may be grown as a standard or

shrubs given me by Kew to help furnish my employment at Strawberry Hill, on my retirement at the end of the same year. The winter of 1908-9 was relatively severe, and one of the cuttings perished. The other grew freely and flowered profusely in the summer of 1909. It presented a main stem with lateral branches, the lower ones of which I cut away, leaving the plant in the form of a miniature tree. This habit I encouraged from year to year, and now my tree has a trunk 4 feet high and 18 inches in girth, just below the point from which spring six primary branches. The crown is almost spherical, with a diameter of about 15 feet, and is kept to this size by annual pruning of the very numerous year's growths, from 4 feet to 7 feet long. These yearly growths are much branched, each branch bearing a number of panicles, successively developed from the apex downwards, the whole continuing in flower for from four to six weeks. The panicles are dense, cylindrical, curved and tapering to the tip, and from 6 inches to 18 inches long, the terminal ones being much the largest; and the fragrant flowers, in my variety, are a bright red lilac with a yellow eye.

Perhaps the safest method of growing *Buddleia variabilis* is against a wall with a south-east to a north-west aspect; but as a standard it is almost incomparable. On account of the extreme brittleness of the wood at the base of the shoots it demands a sheltered situation. Steady rains, as well as violent winds, are destructive, as the woolly tomentum of the leaves holds a large quantity of water, sometimes of sufficient weight to break off the bough. Nevertheless, *Buddleia variabilis* is well worthy of cultivation, both for the beauty and abundance of its flowers, as well as for the long duration of its flowering period, at a season when the majority of flowering shrubs are over. I have a suspicion, however, that an unusually severe winter will kill it. Like its South American congener, *B. globosa*, it readily responds to changes of temperature during the cold season. A mild



BUDDLEIA VARIABILIS MAGNIFICIA. (Much reduced.)

against a high wall. I remember seeing in 1908 a very fine example covering the front of a cottage at Abbotsbury, Dorsetshire. Two rooted cuttings of this plant were among the

week in midwinter will cause it to put forth fresh shoots, to be nipped the next week perhaps, and replaced, maybe, two or three times during the winter.

BEAUTIFUL ROSE HEPS

THERE is a fine single-flowered Rose that all who value the winter effect of the heps should plant, and that is Sheilagh Wilson. It makes a gorgeous sight in autumn and winter, and the heps are so unlike any others of the Rose tribe. Here we have huge clusters of splendid Pear-shaped fruits of a scarlet apricot hue, extremely ornamental in late autumn and winter, and I consider the Rose worth growing for its heps alone. But the flower is also very beautiful. It much resembles that of Carmine Pillar, but with a distinct golden zone at the base, and the variety is fairly perpetual. It does not produce the gorgeous effect of Carmine Pillar in June, but the perpetual-flowering trait makes it valuable for planting among the lovely single Roses we now possess. I think it absurd to class such Roses as this Hybrid Teas. Possibly it is a hybrid with a Tea Rose, but we might well group such Roses as hybrids without adding the word "Tea," as such a definition must be misleading to the novice. DANECROFT.

ROSE CHRISTINE

THIS was by far the most beautiful of all the new Roses at the National Rose Society's Autumn Show, and, as mentioned in our report last week, page 472, it was the only variety to gain the coveted gold medal. The flowers are of a lovely rich golden hue, not unlike Rayon d'Or. The foliage is hard and glossy, with every appearance of making a real good garden Rose. It was shown by Messrs. S. McGredy and Sons, Portadown, Ireland.

CALENDULA GRANDIFLORA

WE have grown this annual for some years now, but never has it done better than in the present season. We have cut hundreds of huge flowers of a brilliant orange red colour, and some of the flowers, all of which were very double, were about 3 inches to 4 inches across. This plant began to bloom here in June and has never ceased since, and at the time of writing (late September) there are still numerous flowers. We find it is best to sow a pot of seed in March in gentle heat, and prick out the seedlings into boxes of soil in a frame as soon as large enough. Then in early May we plant them out of doors, after hardening off, 6 inches to 9 inches apart each way. It is very necessary to get them out early, or they easily become "leggy," but a vacant bed or two is available for them in most gardens, except, of course, when every bed is full with spring bedding plants till the end of May. In that case, sow a week or two later and give the seedlings air on all occasions. The display soon ceases if the dead heads are not picked off the plants very frequently, but it is well worth the time spent on this, for they will bloom on till the frost comes.

Westwood, Ecclesall, Sheffield. E. T. ELLIS.

JOTTINGS FROM A WELSH GARDEN

BY A. T. JOHNSON.

THIS has been a year of extremes, and extremes are bad for gardens and gardeners. Violent winds, excessive rains and a low temperature, together a trinity of evils grievous enough, gave place about mid-July to a month of drought, during which the sun shone with a heat so fierce that, despite every possible effort, many treasures suffered beyond recovery. With mere lack of moisture something can be done, but when the Sun-god rises in such strength and casts such

de Versailles, that had nearly expired, sun-lover as it is, took fresh courage; and *Diplacus glutinosus* showed its appreciation of the humidity by distilling afresh the old sweet spices of its native hills. A veteran Rose W. A. Richardson hastened into its "second impression," lest this uncertain year should not afford it an autumn opportunity sufficiently favourable, and that without having been revised with the pruning scissors—a tonic which we never fail to administer in late summer. A colony of *Nemesias*, opal-tinted, which had been

selected for carrying on a little tale in blue, left unfinished by the untimely death of the Forget-me-nots, succeeded remarkably well; and the bells of *Phacelia campanularia* chimed those rich, deep notes which *Gentiana acaulis* usually affords us after a midsummer rest.

Against a bank of Ivy a clump of Tiger Lilies, which all along has defied the elements, raised its spires to the noble height of nearly 7 feet and bore upon each some twenty-seven to thirty blossoms of wonderful size and texture. Some *Lilium chalcidonicum* which had delayed their coming blazed in burnished scarlet against a background of *Chrysanthemum maximum* Mrs. Lowthian Bell. *Lilium longiflorum* shone with horns of crystal among the rich greenery of dwarf Rhododendrons. But it is the Tiger who is the Lily of autumn's golden hour. It is her gleaming torches which most fitly illumine the mists that gather in the wake of summer's passing splendour and glows in the mouldering fires of the "maturing sun." And, what is more, she never fails us.

The glory of this happy reprieve, however, was doomed to be short-lived. Heavy thunder rains beat upon a tender and sappy growth. Cold and yet colder nights conspired to complete the destruction, and in a few brief days the soul of our summer garden had fled. "Brilliant hopes all woven in gorgeous tissues" we shall inscribe on the tablet to its memory. "No

flowers" is the melancholy echo of its farewell song.

Yet there are strangers who, in passing by, still stop to look over the oaken gate. Arrested by a blast of fragrance from those horns of crystal, or by a glimpse of crimson Begonias whose soil-spattered faces are hanging for very shame, they tell us, unconscious of the sting, that we have a very lovely garden. Now, were it not for the evident sincerity of these observations, we, who have so unwillingly had to adopt the rôle of undertakers, might imagine such eulogies to be intended to convey other than a literal meaning. But if these kind remarks—and they are kind—do hurt a little sometimes, we try to believe that it is, after all, as beautiful as they say it is. We



THE NEW GOLD MEDAL ROSE CHRISTINE.

burning rays upon the earth that petal and leaf are literally scorched as by fire, when old trees droop through fear and the embers of summer begin to smoulder among the Bracken before August is in, then one is helpless, one is sad. Much of our summer garden, cut off in its prime like the wicked, is now a mere wraith of its former self.

There was a time when it partially rallied. That was under the genial influence of a steamy week of Mushroom weather. A Clematis Jackmannii, which had all but given up hope, then threw a canopy of glacier white over the warm red tiles of a bay window. Its big brother, C. Henryi, lit up with ivory stars the funereal purple of a departing relation. Down below, Ceanothus Gloire

try to persuade ourselves to crush that miserable worm of wounded ambition within us, which we know is alone responsible for our dejection, and to apply a philosophic top-dressing to the sweet uses of adversity.

It may be a simple, if monotonous, business to bed-out your spring border like a Dutch bulb farm, or to debase the good name of gardening with those "turgid mosaics" of some public parks (yea, and of a few private domains), which remind one of the old-time prints of blue and red soldiers, square and stiff on parade. But is it not just one's endeavour to steer clear of such terrors that distracts? Veronica, who can stand the strain with apparent equanimity, if not with a little relish, sometimes tells me that I lack imagination, or that my faculty of organisation has lost its edge. That is when, surrounded by bags of bulbs, labels, tools, little white sticks, fertilisers, pest-killers, catalogues, rain threatening, a quantity of bare and rather wet earth, a few bowls, bags of fibre, bits of charcoal, cans of water, and other things in great assortment and not a little confusion, she sets to work with such commendable calm and self-control.

Indeed, in the midst of this place of fear, have I not seen her toying with a *Chionodoxa* bulb as though she could see in its shrivelled husk fair visions of spring's daintiest bridesmaids, all in their snow white kirtles sashed with blue? And this while a mischievous wind was getting all the white sticks into their wrong places and the *Scilla* bulbs were playing marbles with a tumult of autumn leaves. Have I not seen her under these trying circumstances leisurely weighing a fat Sir Watkin on the palm of her hand, and marvelled that she should bestow upon his aldermanic waist no less enthusiasm than that which she bestowed upon her first trout? It is then that I feel myself physically and mentally giving out. Nevertheless, rent between the contending forces which flank me with colour arrangement

on one hand, the bewilderment of numbers on the other, and a lingering tag of something at the rear which denies me the relief which running away might bring, I crawl in feebleness and humility through this annual baptism of bulbs. In vain and in sorrow did I once plead "Is thy servant a dog that he should be chastened thus?" But in penitence have I learned to submit.

Happily, however, there are symptoms that if we do not love our spring garden of bedded-out bulbs less, we love the things of the wild garden more and increasingly more. Thus, instead of being torn between the necessity of uprooting a border of *Antirrhinums*, which, with fair weather, will give us bloom nearly up to Christmas, and the desirability of getting the bulbs out of their sawdust in good time, we can, with an easier conscience than we once possessed, wander into the woodland to see how the autumn *Cyclamens* are getting on.

It is among the mossy roots at the base of great Oaks that these Neapolitan beauties are now blooming, and very elegant do they look in their deep crimson and soft rose pink in such a setting. Close by them is a colony of *Hepaticas*. Some of these, thrown out of their reckoning by the abnormalities of the meteorological department, have lost their way, for they are to-day thrusting forth their little silken fists, and with half-closed eyes seem to be day-dreaming of *Snowdrop* hours and the early thrush. Any moment, hereabouts, the Autumn *Crocus sativus* will spontaneously appear among the trailing Ivy; very chaste will *Crocus Hadriaticus* be in satiny white and scarlet where the Dog's-tooth Violets lay; while *C. speciosus* and others will make a mosaic of violet and gold, purple and scarlet and white in the grass where the first acorns are falling. Nor do we forget that Ivied slope where, in a blaze of golden sunlight between the rusting Fern, *Sternbergia lutea* is awakening in readiness to greet the "calm and deep peace" of old October.

NOVEL POTATO PRODUCTION

FEW people are aware of the following system of growing young Potatoes during the autumn and winter months. This novel method of Potato culture is so simple that the merest amateur can scarcely fail to be successful in his first trial. Like a good many other things, it was found out quite accidentally, Mr. G. Stanton, at one time steward of Park Place, Henley, being the fortunate discoverer. He came across it in this way: The establishment of which he had charge being a large one, a considerable quantity of Potatoes are stored each year. When the tubers are lifted they are carted to some chalk caverns, of which there are several on the estate, and there placed on the floor in heaps. These caverns are, of course, perfectly dark. Now the crop thus garnered a few years ago was a particularly large one, far more Potatoes being stored away than could be possibly used. On previous similar occasions any surplus had been given away when the following season's crop was lifted. Accordingly, in July of the succeeding year, preparations were made for the removal of all the old Potatoes remaining. It was then discovered that many of the old tubers were simply covered with tiny new Potatoes, very small certainly, but real Potatoes, nevertheless. The most promising of these tubers were selected and placed singly on the floor of another part of the cavern, a little finely sifted dry soil being lightly sprinkled over them. About a month afterwards it was found that the budding Potatoes had increased very much in size, and were, in fact, big enough to gather for the table. They were found to be very much superior in quality to young Potatoes grown in the ordinary manner, being almost entirely free from waxiness. So satisfactory were the results of these experiments that arrangements were made for a large number of old tubers to be placed on rough wooden shelves and arranged in the manner indicated. Throughout the autumn and succeeding winter the needs of the establishment were fully met by young Potatoes produced in this novel manner.

It is found that the old tubers will go on producing small Potatoes for a long time, often until they have little left but the skin. After all the biggest new Potatoes have been picked off the old tubers, they are placed once more in the mould, the tiny ones being ready for gathering at a later date, thus giving a succession. It is strange that practically no leaf or root action is made from the old Potatoes.

Satisfactory results have been obtained from Potatoes grown in this manner in Mushroom-beds, or in frames with a little heat, although artificial warmth does not appear necessary.

Anyone who can find a dark, dry corner with a fairly even temperature can grow Potatoes in this manner, only the place must be perfectly dark. Those thinking of experimenting in this direction should procure some old Potatoes of a fair size, as they should be started soon. The kind which gave the satisfactory results detailed was Windsor Castle, though probably any maincrop or late varieties would do as well.

A little care should be exercised in the cooking of these Potatoes. It is very important that they should be slowly boiled in a saucepan for seven or eight minutes, and after that steamed until done.



TWO YEAR OLD SETS WITH GROWING TUBERS.

HOW TO GROW ONIONS FOR KEEPING

BY CLARENCE PONTING.

SOME QUERIES FOR C. F. ADAMS

OH dear! Oh dear! There go all our cherished ideas on the correct method of growing Onions. Ever since I possessed a garden I have laboured under the false impression that really big Onions were the result of autumn sowing, with a transplantation into a bed of rich soil in the spring months. But here comes one, C. F. Adams, who with one fell swoop says, "Away with them."

Now, let me at the very commencement inform my readers that I have always been of the opinion that Onions were not really a profitable crop, when everything is taken into account. There is the cost of the seed, which when Ailsa Craig is chosen runs to 2s. an ounce. This quantity of seed will require some half a ton of manure at 3s. 6d. the half load, a bag of soot at rs., and some 2s. worth of approved artificial manure.

For 8s. 6d. one could purchase enough Onions to "make a beast of one's self," as my young hopeful would say. Wherein, then, comes the wish to grow Onions? I sincerely hope that "Anne Amateur" (whose delightfully chatty letters and articles I always enjoy) will not read these lines. The real reason why I spend 8s. 6d. upon my Onion bed is *because I simply delight in trying to grow big Onions.*

There, the secret is out! What has Mr. Adams to say with regard to his method of growing keeping Onions? I notice that he carefully avoids all mention as to the weight of crop and size of his Onions. I can see those Onions in my mind's eye—just the sort that "Anne Amateur" would glory in producing; just little chaps 3 inches to 4 inches round, and so strong in flavour as to bring tears of gladness to one's eyes when they are prepared for the pot. I have tried Onions grown under the "do not thin" method, and know that they will push each other out of the soil. So will the-transplanted ones if they are correctly spaced upon a really good bed.

There is one question which I would like to put to Mr. Adams, and that is, how does he manage to keep the weeds down through the season without the aid of a hoe, more particularly during the period when one is awaiting germination? I will give him a very simple method by which he need never put a hoe upon his ground all the season. It is this and nothing more: A week before sowing his seed, let him cover his bed with rough salt and soot until the soil cannot be seen through it. Then dig this in and sow the seed a week later. I always adopt this method, and weeds do not make their appearance until almost harvesting time, when they can be ignored. The dressing of salt does not affect the germination of Onion seed in the slightest degree, but weed seeds it appears to kill outright, also our enemy the Onion maggot.

Another question I might ask is, does a really well-grown large Onion keep as long as the small, crowded ones? I have found very little difference between them, provided the Onions are well ripened, and this can always be ensured by either growing the plants from an autumn sowing or



VIEW OF CAVE WITH OLD TUBERS ON ROCK.

raising the seed in boxes in a heated frame or house in January.

This year, however, a peculiar effect was observed by myself and another Onion-grower living some thirty miles away from me regarding autumn-sown Onions, and perhaps some reader might say what caused it. The seed was of Bedfordshire Champion, sown early in August and left outdoors all the winter. In spring these plants, which were nice healthy ones, were transplanted into a rich bed, and a shower watered them in nicely. After this they made no more "grass," but slowly formed Onions about the size of a Shallot, and never got any larger. My friend's were not from the same batch of seed, but failed in exactly the same manner.

Some might say that it was the fault of the soil, but seed sown upon a portion of the same bed in March resulted in some of the most satisfactory Onions that I have ever raised, and have now (September 14) just been taken up to store. Everybody agrees that the Onion bed must be made hard, but the question of autumn or spring sowing is one which might be thrashed out in these columns. Do the autumn-sown Onions keep as long as, or longer than, spring-sown ones? In theory they ought to do so, as the crop ripens when the sun is still powerful and keeps the tops free from mildew. On the other hand, one will find growers who say that autumn-sown Onions have to be used up quickly or they will rot.

The Tripoli section are usually sown during the autumn months, and these do not seem to keep as well as might be desired, yet they are universally listed in the seed catalogues as "an excellent keeping Onion."

Now, Ailsa Craig will stand the winter in the Southern Counties when sown in the open during the autumn, and such bulbs will keep very

well, provided they are not attacked by disease. But, marvellous to relate, one meets with growers who will revile Ailsa Craig as a keeping Onion. Whence this difference of opinion? Probably those who have found Ailsa Craig Onions bad keepers have "blown them up" to the size of footballs with frequent applications from the liquid manure pot, and under these conditions one cannot expect them to keep. Therein lies the secret of failure in keeping Onions, and not in the use of artificial manures.

Provided artificial manures are added when preparing the ground, they will not affect the keeping properties in the slightest. It is the "blowing out" of Onions by the repeated applications of artificials during the growing period which affects their keeping properties.

Mr. Adams will shiver under a snowstorm of protesting letters, I venture to predict.

NARCISSUS BLACKWELL

THE illustration on page 482 shows one of the best all-round semi-modern varieties of Narcissi. Both indoors and outdoors, it is a most effective plant on account of the very pronounced red colouring of its somewhat long and narrow corona or cup. It has the distinction of being one of the few non-faders, and this quality it is unnecessary to enlarge upon. It is a great asset. Blackwell likes a soil which is on the light side. It is an early flowerer. As the price has lately come down very considerably, it is within the reach of many more than it was even a couple of seasons ago. It belongs to the incomparabilis section with yellow perianths, and was raised by the old original Backhouse. It must, however, be one of the last of his productions that saw the light of publicity.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Early Vinery.—If it is intended to start the Vines in November, the necessary pruning and cleaning must be done without further delay. The shoots should be pruned back to two eyes, the rods thoroughly cleansed, and, if mealy bug is present, it will be advisable to rub off all the loose bark and then scrub the rods with a strong solution of some insecticide. The interior of the house may be washed and the walls whitened with lime. The borders will need attention, first by removing a thin layer of soil, and then replacing it with fresh material, such as good fibrous loam and a sprinkling of bone-meal.

The Hardy Fruit Garden.

Grease-Banding.—This important operation must be carried out early next month, using good grease-proof paper and Cooper's Tactite to trap the females of the winter moth. Where trees are tied to stakes, they should be treated the same.

Root-Pruning.—In the near future root-pruning may begin if any of the trees have been unfruitful through an excess of vigorous growth. Young trees may be lifted and replanted. Old trees will not require such drastic treatment, and a trench should be dug about 4 feet deep, and 6 feet or so from the stem. All strong roots must be severed, especially those going in a downward direction and without fibrous roots. This will generally be sufficient to check the robust growth and be the means of the tree producing fruit-buds. Once the tree begins to bear freely, there is not, as a rule, further trouble in this direction. Keep the fibrous roots as near the surface as possible, and a little fresh soil may be helpful to old trees.

The Kitchen Garden.

Dried Herbs.—If these are required they should be cut when showing for flower. To secure the flavour the drying must be gradual, and a cool, dry room where plenty of air can be admitted will be found the best place.

Herbs for Forcing.—Some herbs, especially Mint, are always in demand, and a few roots may be lifted and placed in boxes, which should be put in heat as required. Another method is to lift the roots and arrange them on a gentle hot-bed, a practice to be recommended where a quantity is required, but for a small garden a box or two will suffice.

French Beans.—A sowing of Osborn's Forcing may be made in pots, which should be arranged in a moderately warm house where the surroundings are kept moist. When the seeds have germinated, place the pots near the roof-glass and do not water them to excess. Syringe the plants daily to prevent an attack of red spider.

The Flower Garden.

Gladioli.—The bulbs may be lifted with the growths attached, and after tying them in small bundles they can be suspended in an airy shed to dry off. Later on they may be looked over and the bulbs placed in boxes until it is time to replant them.

Heucheras.—In addition to *H. sanguinea* there are several delightful kinds which are valuable for cutting. They may be raised from

seed or cuttings, the latter being taken now and inserted in sandy soil in a cold frame. Old plants that have their rootstocks exposed may be top-dressed with a mixture of loam and leaf-mould.

Bedding Plants.—If the supply of cuttings of Pelargoniums is deficient, it will be necessary to lift some of the old plants and pot them up for next season. It is not advisable to leave such work too late, as a frost may occur at any time. Stock plants of Heliotrope, Salvia patens, Fuchsia, Verbena Miss Willmott and Lantana must also



NARCISSUS BLACKWELL. (See page 481.)

be secured. A good plan is to keep a few back in May and pot them on.

Plants Under Glass.

Clarkias.—These are ideal subjects either for conservatory work or for cutting, and two good kinds are Fire King and Salmon Scarlet. Seeds may now be sown and the seedlings raised in a cool greenhouse. Pot off as required, and grow the plants cool throughout, keeping them close to the roof-glass at all times.

Schizanthus and Mignonette.—Another sowing should be made to produce a succession of bloom. Both may be kept in a cold frame until frosts are severe.

Roses in Pots.—These may be repotted or top-dressed with a compost of good fibrous loam

and decayed cow-manure. Stand the plants where they will receive plenty of light, and do not prune them until a few weeks before they are brought under glass. Very little fire-heat will be needed at first, but after a week or two the temperature can be raised slightly.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Spring Cabbages.—If the Onion crop has been secured, the ground should be cleared of weeds by hoeing and raking. No digging or loosening of the ground is necessary. The Cabbage plants for the spring supply should now be planted on this quarter as soon as possible. Draw the drills 2 feet apart and allow a space of about 15 inches between the plants; puddle the roots in a mixture of soot and water, and see that they are properly firmed with the dibble. Should the weather be dry, with hot sun, one soaking of water may be necessary to enable the young plants to make a good start. As I stated in an earlier calendar, the most reliable varieties I have found for planting at this season are Sutton's April, Flower of Spring, and Harbinger.

Celery.—This crop requires frequent attention at this season. Earthing up should be continued as the plants grow. It is imperative that the soil should be tolerably dry and finely pulverised, and the same care taken that no particles of soil reach the centres of the plants.

Spinach.—The main sowings of Winter Spinach should now be far enough advanced to allow of the plants being thinned out from 2 inches to 3 inches apart. Take advantage of a dry day to run the hoe between the lines, and give frequent dustings of soot in gardens that are badly infested with slugs. Should the earliest sowing grow too freely during the late autumn, the largest leaves may be picked off, whether they are required for use or not.

Kidney Beans.—A sowing of these may now be made in pots for winter supplies. These will only be successful, however, where a suitable house is provided—a light, airy structure with a good command of heat. Seven-inch pots may be used at this season, allowing from six to eight plants for each pot. When the young plants are about 3 inches high, they should be placed near the glass, on a shelf, if possible, where the syringe can have free play on the under side of the foliage. As growth proceeds they will require to be supported with

twigs to keep them in an upright position. Osborn's Forcing still maintains its reputation as a good variety for earliest use.

The Flower Garden.

Bedding Plants.—Continue to put in cuttings of the remainder of the bedding plants. This month should see the bulk of this work completed. The earliest of the tender subjects should now be well rooted; these can be removed to more airy quarters and the propagating-frame used for the later batches. Hardier subjects that are better for being propagated annually, and that root and winter in cold frames, include Violas, Veronicas, Thymus, Alyssum, Heuchera, Anthemis, Lavender, Rosemary, Monarda, Anchusa, &c. The latter by careful propagating may have its flowering period extended considerably, and as this plant may be

entirely killed out in a severe winter, it is advisable to lift a portion of the stock annually. Young growths with a portion of the rootstock attached root freely and provide plants for early flowering, while the thongs when cut up in lengths and placed in a sandy compost produce plants which will continue to flower till late autumn.

Wall Climbers.—These have been growing rapidly of late, but have now mostly completed their growth. Those shoots required for next season's flowering should be carefully supported, and all others, as well as old and useless wood, removed, so that the young growths may have the full benefit of light and air to become matured before the winter.

The Rock Garden.—A good deal of cleaning up in the rock garden will be necessary this month, removing weeds and decayed leaves, cutting back strong growers, as well as planting where necessary. It is not advisable, however, to plant much at a later date, for the plants must be established before winter. A few of the spring-flowering bulbous subjects may still be planted, such as the small-growing Narcissi, Scillas, Chionodoxas, Grape Hyacinths and Snowdrops. Various Anemones may also be included, as these form brilliant patches of colour.

Fruit Under Glass.

Fumigating.—Vineries and Peach-houses, as soon as they have been cleared of the fruit, should be thoroughly fumigated to arrest any further spread of red spider or thrip. The conditions necessary for the ripening fruit are also favourable for the rapid increase of these pests, which at that time cannot be treated with insecticides. One or other of the nicotine fumigating compounds is the safest and most efficient means of treating red spider or thrip. Its first cost is relatively high, but if judged by results it is quite as economical as, and generally more efficient and simpler in its application than, any other.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

THE AUTUMN ROSE SHOW

BY "ANNE AMATEUR."

SOME UNPROFESSIONAL IMPRESSIONS.

NEITHER know nor care two pins about "points" or prizes, nor am I acquainted with the names of any judges or exhibitors, so here record, without bias, the impressions of a very ignorant amateur who loves flowers, but has not visited a Rose show for several years. Naturally, I made my way very soon to the "bowls of Roses" by lady amateurs. But oh, what a disappointment awaited me! The so-called "bowls" looked like those hideous things on which farmers stand ricks to keep rats at bay. It does lady amateurs immense credit that they make flowers look passable in such ugly receptacles. As it is, they manage to present prim bouquets like those in florists' shop windows. Nevertheless, one lady—Mrs. L. Colston Hale—achieved an artistic triumph with a clever blending of difficult and unusual colours, most exquisitely arranged. (Of course, it did not secure a prize; too daringly unorthodox, I guess.) I was not alone in my opinion, for while I stood admiring it I heard several others expressing a similar judgment. Far otherwise were the "bowls of Roses" I recall—great Oriental china punchbowls, green, blue and gold, mounted on curved, carved stands of Cherry wood and brimming over with mingled masses of Roses, in which one might bury one's face and draw a long enjoying draught of fragrance. Ah—h—h! How different from those

Stiff and spiky "touch me not
Or you will upset the lot"

bowls at the show! Among the Roses that excelled in beauty on the stands were Lady Hillingdon (with its charming contrast of flower and foliage), Irish Elegance and Fireflame; while the one that made a jarring, discordant note everywhere was Mme. Edouard Herriot (alone, in a garden, it is another thing). At the show it looked like a naughty, quarrelsome child, scarlet and screaming, that ought to be put in a corner by itself. Lady Pirrie, of similar tints, but paler, is a refined and beautiful flower. Red-Letter Day is very decorative, but lacks perfume. Princess Mary adds this charm to brilliant beauty. A Rose which struck me as rather out of the common was Constance, a round, Cabbage-shaped yellow Rose. Cheerful does not maintain its name. It opens cheerfully, but when fully blown looks dull and sorry. It lacks Shakespeare's "merry heart" that "goes all the way." Sunburst is beautiful and well named; just the colour of a golden dawn at the moment the sun rises. Melody has a delicately pure pale yellow tint. I found myself fascinated by Queen of the Musks. It looked like a dear little baby, too young to be at the show among all the grown-up Roses. I felt it ought to be in a toy perambulator together with Tiny Tim, another baby Rose. Unlike these was a poor little flower which seemed to suffer from a combined attack of jaundice and measles (I think its surname was Resal or Messimy). As a family nurse I should isolate it in a bowl of disinfectant, and not bring it to the show. I did not admire Mrs. Salmon, but thought it a large, coarse, vulgarised version of a wild pink Rose; and Old Gold I found almost as ugly in shape and colour at the show as I thought it at Allington earlier in the year. Roses which appear to greater advantage in the garden than at the show are General Macarthur, A. Hartman, Orleans, beautiful Mrs. C. Pearson, and last, but not least, dear old Mrs. John Laing.

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

PLANTING PERENNIALS AND SHRUBS (R. M.).—The whole of the plants named in your list, both herbaceous perennials and shrubs, may be planted now or in the ensuing month, October. If intended for the open ground, Corydalis nobilis should be given a cool spot in sandy peat or very sandy loam, the Dielytra a position sheltering it from early morning sun following spring frosts, and Lupinus arboreus either a wall space, where it could be trained, or a right-angled corner in a southerly position, where it might form a bush at will. The Hieracium is of a rather weedy nature and should not be allowed to seed. Of the shrubs, the only one calling for a sheltered place in your Northern district is Buddleia globosa. This should be given a warm, sunny exposure, and be planted in deep, well-drained loam or

one freely mingled with old ceiling plaster or mortar rubble. The Hibiscus should also be in a sunny place, though needing no shelter.

SPRING BEDDING (A. H. R.).—If we understand your letter rightly, that the beds have their surfaces wholly carpeted with the plants named, we would suggest that Sutton's Fire King or Giant Blood Red Wallflower be used for the beds carpeted with Arabis, and Orange Bedder with the Pansies. If the latter are of the Tufted class—that is, "bedding Violas," so called—these would continue flowering long after the Wallflowers had finished. If the six beds referred to constitute a design on the terrace, we would further suggest that they be treated equally, three of each, and not in the unequal way you now suggest. If, however, the beds are not linked up in one design, but widely separated, the latter suggestion would not apply. You do not say whether the single or double flowered Arabis is being employed; that last named would, however, be best. The planting should be taken in hand now, introducing the Wallflowers first and subsequently the carpeting plants.

TURKISH TULIP (Tulbend).—The name Turkish Tulip is applied to Tulipa acuminata, syn. T. cornuta. It is, as the illustration shows, a very quaint species; its native country is unknown. The flowers are more curious than



TULIPA ACUMINATA, THE TURKISH TULIP.

beautiful, with long wiry segments, but it is an interesting plant, and it is nice to have a little group of it in the rock garden or flower border. The Lady Tulip is Tulipa Clusiana, from the Mediterranean region.

TREES AND SHRUBS.

PRUNUS PISSARDII (P. T.).—We have no previous record of Prunus Pissardii fruiting so far north as Aberdeenshire, and it is interesting to learn that your tree has borne a fruit this year. It may, of course, have fruited in northerly gardens and not been recorded. It is at the best of times a shy fruiter in the British Isles, and individual trees, even in the South, rarely bear more than a few fruits. It is probable that the early date at which the tree flowers, and the changeable weather usually experienced at that time, may prevent the fruits setting.

ARUNDINARIA METAKE (S. W.).—Arundinaria Metaké, or, correctly, Arundinaria japonica, grows naturally into a very dense, compact plant. It can be made lighter by well thinning out the branches each spring. During early April, before the young culms are far advanced, cut away a considerable number of the older branches right down to the ground line. By doing that, the appearance of the plant can be improved considerably. If any clumps have to be transplanted or divided, the work ought to be done about the middle of May, for at that time the plants most quickly recover from root injury.

VARIEGATION IN VERONICAS (C. J.).—The leaves of the common Veronica do not often appear variegated. The shoots you mention are abnormal, and are what are technically termed "sports." If they will possess any commercial value depends upon whether the variegation improves and is constant; at present, from what one can judge from the leaves sent, plants with such variegation would be decidedly less beautiful than the typical green-leaved bush. If, however, the variegation improves and green shoots do not appear, some nurseryman may give a little for the stock, although it is not likely to be very valuable, variegated-leaved shrubs being so common that it must be a really first-rate subject to be of any considerable value.

THE SCARLET TRUMPET HONEYSUCKLE (J. R. D.). This is one of the most beautiful of all Honeysuckles, but, unfortunately, it is not hardy enough for general cultivation, although in many of the milder parts of the country it gives excellent results, and has been noticed in good condition growing against a wall in a Cheshire garden. It belongs to the climbing section of the genus, and to the group in which the uppermost pair of leaves is united to form a circular leaf-like saucer over which the clusters of flowers appear. In many cases the leaves are evergreen, although they may sometimes be deciduous. The narrow, tubular flowers are nearly 2 inches long, scarlet outside and yellow within. When well developed it continues flowering for a considerable time, blossoms often appearing in June or July, while others are to be found as late as September. As a rule, it gives better results in a moderately moist atmosphere than where the climatic conditions are dry, drought favouring insect pests; and it usually needs wall culture. Good loamy soil suits it, and it can be increased during summer by means of cuttings. *L. sempervirens* is a native of the South-Eastern United States, and was introduced over 250 years ago.

ROSE GARDEN.

ROSE UNA (Una).—This Rose is very beautiful and one of our best early flowering Hybrid Briars, but it is not perpetual. It is well adapted for hedges, but we should not advise it for walls. A good companion to Conrad F. Meyer would be its white sport Nova Zembla, or Zephyrine Drouhin. If you prefer a yellow, we advise Bouquet d'Or.

ROSE FOLIAGE BLIGHTED (A. S.).—The foliage sent appears to be affected by red rust. Some of the blight may be caused by cold winds. We advise spraying with Bordeaux Mixture, although it is rather late to be of much use now. Another season start by spraying the young growths, and continue the spraying at short intervals. All decayed foliage should be gathered up as it falls and be burnt.

THE GREENHOUSE.

PRUNING GERANIUMS (Mrs. F. E. L.).—With regard to your question it may well be asked whether it is necessary to prune them at all. They must certainly not be cut back in the autumn, otherwise in a cool house decay of the stems may set in and prove difficult to stop. Notwithstanding your ill-success, the month of March is undoubtedly the best time of the year to carry out this operation if it is necessary. You ask how far down the plants should be pruned. This depends upon the height at which you wish them to grow, but one very essential point to remember is that the harder the wood which is cut into, the longer it will take for new shoots to push out and the longer you will have to wait for flowers. If pruned, as soon as the young shoots are 2 inches or 3 inches in length an occasional stimulant will be helpful.

RHODOSTACHYS PITCAIRNIÆFOLIA (E. S. L.).—This is a member of the Bromeliaceae or Pineapple family, and is now by botanists known as *Fascicularia pitcairniæfolia*. It is a native of Chile. It answers to your description. Being a comparatively scarce plant, you are not likely to meet with the name in catalogues, but it is mentioned in Nicholson's "Dictionary of Gardening." We have not met with it grown outdoors, and am doubtful if it would succeed with you under such conditions. If you are inclined to try it, the situation named by you would be very suitable, provided it was not too much exposed. In any case, it would not be advisable to plant it out now with winter fast coming on us, but rather to wait until the frosts of spring are past, as it would then have time to become acclimatised before the cold and wet weather set in. In a state of Nature it grows in vegetable debris, so that some peat should be mixed with the soil in which it is planted.

FERN FRONDS DISFIGURED (Miss W.).—The Fern fronds sent are badly infested with a tiny mite, whose ravages in many gardens are greatly on the increase. It, or a nearly allied kind, is very liable to attack Begonias, Gloxinias, &c. Too dry an atmosphere is very favourable to the development of these pests, hence a reasonable amount of moisture should always be maintained in the structure in which the plants are growing. Frequent vaporising with nicotine will keep the pests in check. If the number of plants is limited, they may be dipped in a solution of Quassia chips to which a little soft soap has been added. This solution should be about blood heat when the plants are dipped therein. As your plant or plants are in such a bad state, we advise you to cut off the worst of the fronds and dip the others in the above mixture. A sharp look-out must be kept for a renewal of the injury, and at the least sign thereof the plants should be again dipped. Once the mite has obtained such a hold on the fronds as in your case, it is only by continual care that it is got rid of.

USE FOR GREENHOUSE (E. C.).—An exceedingly difficult question to answer, for you give us no idea of what you would prefer to grow in your greenhouse. If you think of keeping it as gay as possible with flowers throughout the year, you may, providing a temperature of 50° to 60° is maintained during the winter and spring, grow such subjects as Primulas, Cyclamen, Arum Lilies, Eupatoriums, Carnations, Zonal Pelargoniums, &c. Bulbs that may be potted now are Roman Hyacinths, Freesias, Narcissi and Scilla sibirica. The pretty blue flowers of this last will make a pleasing feature. In the summer a great number of subjects are available, such as Fuchsias, Pelargoniums of different sorts, Begonias of various kinds, and numerous other summer-flowering plants. In autumn, Chrysanthemums may be depended upon to make a good show. You do not say whether your house is a lean-to or span roof, or if there are stages therein for plants; hence we can only presume that there are. In the event of your regarding the greenhouse more from an economical standpoint, you can in the spring use it for raising seeds of early vegetables, including Beans. In summer, Tomatoes and Cucumbers might be grown. A good plan would be for you to seek the advice of a practical gardener in your neighbourhood, who, by seeing the structure and its surroundings, would be far better able to judge than anyone who has not seen the place.

MISCELLANEOUS.

SLUGS AND GARDEN REFUSE (E. W.).—You would be ill-advised indeed to defer your offensive on the slug pest to next spring. Before that time, by using damp sacks or the Vernon Hill Slug Trap, or both, you may have accounted for scores or hundreds before the tender seedling or youthful plant is at their disposal. In winter-time, too, the pests seek the shelter of carpeting and like things; hence boards, slates, sacks, &c., affording similar retreats, render their capture and disposal a simple matter. If your garden refuse consists of the cut-down growth of herbaceous plants that have completed their season's work, the better way to treat it would be to open a trench in the kitchen garden plot (should such exist) and bury it. A trench, 18 inches or 2 feet deep, may be filled to half its depth with green vegetable matter. If, however, there is a large proportion of Dahlia, Michaelmas Daisy, Phlox, the vine of Scarlet Runner Beans, and the like, this would be better burnt. The best of all ways to deal with garden refuse is to have a pit in an out-of-the-way corner, 3 feet or so deep, putting in the refuse, lawn mowings, weeds, and all decaying vegetable matter as made. By sprinkling with lime and covering with a little soil, decomposition is assisted, and by the end of the year that earliest inserted would be ready to return to the garden. Buried in the garden at the depth named it would not encourage vermin, while its manurial value would be considerable, quite apart from assisting drainage and aeration.

USE FOR CLEANINGS OF POULTRY-HOUSE (Lancashire Learner).—The cleanings of the poultry-house form a valuable manure that is of great service to practically all garden crops. It is very necessary that it be kept dry, as if allowed to get wet its manurial value is much impaired. A good plan is to have a large box under cover, and as the poultry-house is cleaned out place a layer in the bottom of the box. Then on this put a layer of dry soil, and add more manure when it is ready. On this an additional layer of soil should be put, and so on till the box is filled. In spring it may be turned out and thoroughly mixed. It must then be lightly spread on the soil and forked in. In this way it is very useful for growing crops. It may also, if no box is available, be put in a heap in a covered shed. The trimmings of the lawn are very useful as manure in the garden. They may be put in a heap and, if frequently turned over, will soon decay. At the same time, they may be dug into the ground even in a fresh state where a plot is being prepared for vegetables. All garden rubbish, if sufficiently dry, can be burnt, in which case the ashes are very useful in the garden, especially for mixing with the soil for small seeds, &c. You must, however, bear in mind the hours of restricted lighting. As some Cyripediums are natives of the Arctic regions and others of the Tropics, your question is impossible to answer. Should it refer to *C. insigne*, which is the most commonly grown of the indoor kinds, a winter temperature of 55° to 65° will suit it well.

NAMES OF FRUIT.—H. G.—1, Lady's Finger; 2, Emily Childs; 3, Duchess of Gloucester; 4, Cox's Pomona. We cannot be certain that these names are correct, as the numbers had worked out of the paper enclosing the fruits.—**P. D.—Williams' Bon Chrétien.—Hants.**—It is the Parsley-leaved Blackberry. The heaviest cropping berry is the Giant Himalayan Blackberry: it is also good in flavour and of fine appearance.—**W. F. M. C.—1, Crimson Queening; 2, Wellington; 3, Tom Putt.**

NAMES OF PLANTS.—A. W.—1, Punica granatum (Pomegranate); 2, Abelia grandiflora.—E. A. S.—Probably Rubus laciniatus.—Moray Firth.—1, Gentiana septemfida; 2, G. s. var. cordifolia; 3, G. asclepiadea; 4, one of the hybrids of Viola tricolor; 5, Campanula persicifolia; 6, leaves of Primula frondosa.—Mrs. I. T.—Ranunculus alpestris var. flore pleno. Yes: it is a very beautiful variety and well worth cultivating.—H. N.—A, Taxus baccata; B, Cupressus pisifera var. squarrosa; C and F, Vitis inconstans; D, Euonymus japonicus var. argenteus; E, material not sufficient to identify; G, Hedera Helix var. argentea; H, Fatsia japonica.—H. J. W.—Cockspur Thorn (Crataegus Crus-galli).—H. B. H.—Eryngium planum.—Miss R. M.—1, Mentha hirsuta (aquatica); 2, M. piperita; 3, M. sylvestris; 4, M. rubra.

SOCIETIES

ROYAL HORTICULTURAL SOCIETY.

THE holding of the annual vegetable show in conjunction with the ordinary fortnightly meeting was responsible for a highly representative exhibition, the vegetables generally being of high excellence. Hardy flowers were splendidly shown by Mr. Box, Apple Rev. W. Wilks, shown by Mr. Allgrove, was a great attraction.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. E. A. Bowles, Sydney Morris, R. C. Notcutt, J. Hudson, J. W. Barr, W. J. Bean, G. Harrow, J. Green, G. Reuthe, C. R. Fielder, J. W. Moorman, W. J. Blakey, J. F. McLeod, J. Heal, J. Jennings, J. Dickson, C. Dixon, A. Turner, H. Cowley, R. Hooper Pearson, E. H. Jenkins, G. Paul, H. J. Jones and C. E. Pearson.

Mr. James Box, Lindfield Nurseries, Hayward's Heath, was responsible for one of the finest groups of hardy herbaceous plants seen this season, a group which, while representing the wealth and beauty of the hardy plants at the moment, was also finely displayed. The Italian Starwort (Aster Amellus) was particularly good and rich in variety, making as good an exhibition subject as a display plant in the garden. The white columnar spikes of Cimicifuga simplex, associated with Scabiosa caucasica in a big central stand, was very effective, while Eupatorium purpureum, Helianthemum autumnale grandifolium, Helianthus Miss M. Lill, Aconitum Fischeri, A. Wilsonii (two of the finest blue-flowered plants of autumn), and the Japanese Anemones in variety, all seen in bold masses, were very suggestive of their garden worth. Aster Amellus Perry's Favourite (of pink colour), A. A. Beauty of Ronsdorf (a very large-flowered variety), Gentiana asclepiadea, the brilliant Lobelia Queen Victoria, with Montbretias, P. laxes and Delphiniums, assisted to make a most sumptuous whole.

Mr. G. Reuthe, Keston, Kent, showed, as usual, interesting and meritorious hardy plants. Of these, Clethra arborea (white fragrant bells), Berberidopsis corallina, Guevina Avellana (the Chilean Nut, a most ornamental foliage plant), Escallonia oregana (trusses of rosy flowers), Magnolia fuscata (the Afternoon-flowering Magnolia) and Desfontainia spinosa were shown. Colchicum speciosum, C. s. album, C. s. purpureum and Astilbe simplicifolia were other notable things.

Messrs. Allwood Brothers, Hayward's Heath, had an excellent showing of Carnations, the strong Clove-scented Bishton Wonder (of lilac pink colour) being one of the most prominent. It is a charming plant and certain to become popular. Wivelsfield White, Princess Dagmar (crimson), Mandarin (yellow-ground fancy), Mary Allwood, and Destiny (new cerise, said to be a May Day seedling) were very fine. Nora West and the new flesh pink Nancy, of American origin, were others of note.

Messrs. J. Cheal and Sons, Crawley, showed an interesting variety of shrubs—Fabiana imbricata, Ceanothus Gloire de Versailles, Hydrangea paniculata (type, white), H. p. grandiflora (of more creamy tone), Nandina domestica (white, with oncoming brilliant foliage) and Berberis Thunbergii (one of the most brilliant of all shrubs at this time). A collection of Dahlias included a variety of singles, together with Crawley Star, White Star, Yellow Star and others.

Roses from Mr. George Prince, Oxford, were excellent, the huge stands of such as Lady Hillingdon, Josephine Nicholson (rich pink), Snow Queen, Hugh Dickson, Moonlight, Old Gold, Mrs. J. Laing, with baskets of Jessie, Orleans Rose and others, being shown to perfection. Mevrow Dora Van Tets (fine crimson) and Duchess of Wellington, if in smaller array, were not less beautiful.

Messrs. George Paul and Son, The Old Nurseries, Cheshunt, showed many interesting shrubs, some of them of rare beauty. Salix pruinosa (white stem and graceful leaves and branches) was one of these. Pyrus Vilmoriniana and Clematis Campanile (a description of which will be given in "New and Rare Plants" in our next issue) were others of importance. Euonymus latifolia (with red capsules and orange fruits) was also fine. Hypericums, Hibiscuses and a variety of conifers were also well shown.

Messrs. Felton and Sons, Hanover Square, showed big vases of Physalis Franchetii, which, with Berberis Thunbergii, a brilliant scarlet colour, and Nertera depressa, made a most effective whole.

Mr. W. Wells, Merstham, showed excellent groups of Helianthus sparsifolius and Aster Amellus King George, the latter, without doubt, the best of its class.

Messrs. Carter Page and Co., London Wall, contributed a great gathering of Cactus and other Dahlias, a collection rich in variety and colour beauty. Sulphurea, Delice and Nisi Prius (of orange scarlet tone) were outstanding varieties.

The Rev. J. H. Pemberton, Romford, again showed his seedling Roses Danaë, Moonlight and Callisto with others in variety.

A table of Michaelmas Daisies from Messrs. H. J. Jones, Lewisham, included many good things. Ryeolett Pink, Lil Fardell, Francis Sands (good blue) and Mrs. S. T. Wright all being good. In the foreground were many good forms of Aster Amellus.

Messrs. B. R. Cant, Colchester, showed fine stands of Lyon Rose, La Tosca, Florence Forrester (grand white), Snow Queen, Harry Kirk and Lady Hillingdon.

ORCHID COMMITTEE.

Present: Sir Harry J. Veitch (chairman), and Messrs. J. O'Brien, J. Wilson Potter, F. J. Hanbury, R. A. Rolfe, T. Armstrong, W. Cobb, J. Charlesworth, H. G. Alexander, C. H. Curtis, J. E. Shill, A. Dye, W. H. White, S. W. Flory, W. Bolton, Gurney Wilson and C. J. Lucas.

THE GARDEN.

No. 2342.—VOL. LXXX.

OCTOBER 7, 1916.

NOTES OF THE WEEK

It has long been known that the Library of the Massachusetts Horticultural Society is one of the finest of its kind in the world. Upwards of forty years have elapsed since a catalogue of it was last published, but a new one has been in preparation for some time past. We think some of our literary friends and readers would be glad to see the new edition. We see by the President's inaugural speech, reported in Part I. of the Society's Transactions for the current year, that the total number of volumes now in the library comprises 25,000; truly a remarkable collection. The next in importance is probably the Library of the National Horticultural Society of France, which comprises about 15,000 volumes, of which there is an excellent classified catalogue.

A White Dahlia for Bedding.—One of the best white Dahlias for filling large beds or spacious gaps in the flower borders is Kaiserin Augusta Victoria. It is far from being an exhibitor's variety, but, owing to its erect habit and freedom of flowering, it is one of the most useful for creating bright effects in the waning days of summer and well on into the autumn. At Kew it has for years been grown with charming effect, both in large beds and in bold groups by the lakeside. This variety has double white blossoms borne well above the foliage, and it must not be confused with the Collarette variety of that name.

Aster Lil Fardell.—We are constantly being reminded of the beauty of this variety. Its large rose-coloured flowers are so much admired that there is little wonder it is becoming such a great favourite. We were recently reminded of its great charm on seeing it grown for trial in Messrs. J. Carter and Co.'s nurseries at Raynes Park, where it stood out from all others of the Novæ-Angliæ section by virtue of its colour and effectiveness. It is also surprising to see how very fond bees and butterflies are of this variety; they seem even to prefer it to the flowers of Buddleia

variabilis magnifica when the two are flowering at the same time.

Reseda Ægyptiaca flore luteo odoratissimo.—"What's in a name? that which we call a rose, by any other name would smell as sweet." Shakespeare is literally correct, of course. All the same, if we had to change Mignonette to some mouthful similar to the title of this note, we would rebel. Has any popular flower ever gone down the ages with such an awful appellation? Yet Reseda, "the band as before," is how our now well-known Mignonette began life in certain Continental catalogues. As might be expected, its sweet-smelling savour was not long in winning the hearts of the "curious" when it became known; and accordingly in France it

possible to hand over the balance or to publish a statement of accounts, owing to certain small balances yet to be received from purchasers. If this notice should catch the eye of any such purchasers, they are particularly requested to immediately send the small outstanding sums due from them, in order that a complete financial statement of the sale may be published.

Horticultural Club.—There will be a dinner and meeting at the Horticultural Club on Tuesday, October 10. Dinner will commence at 6 p.m. The lecturer on this occasion will be Mr. Reginald Farrer, who will give his promised address on his "Recent Explorations on the Tibetan Border." The lecture will be illustrated with lantern slides prepared from photographs taken by Mr. Farrer during his two years' tour.

A Musk "Substitute."—With reference to the recent observations on scentless Musk which have appeared in these pages, the following report on "Musk Baur," issued by an eminent firm of manufacturing perfumers, is of interest. The report was issued previous to 1893. "The popularity of 'Musk Baur' in its present condition of quality is decidedly waning. Not only are the complaints of unequal strength on the increase, but the aroma itself proves to be thoroughly unsatisfactory." In October, 1893, an even more emphatic opinion was



A BED OF DAHLIA KAISERIN AUGUSTA VICTORIA AT KEW.

was soon Mignonette (the Little Darling). When first introduced into England and Scotland "the fragrant weed, the Frenchman's darling" (Cowper) was known to seed catalogues as Mignonette d'Ægypt, thereby recording the name of its native country, and not, as one might have expected, that of the halfway house (France) where it rested for some time, before it arrived in other European lands.

Red Cross Sale.—The sum of £2,000 has already been handed over to the Red Cross Society and the Order of St. John as part proceeds of the sale of plants held by the Royal Horticultural Society in June last. The Secretary regrets it is not yet

given: "In consequence of numerous complaints with regard to the unequal condition of the artificial musk, we have more closely investigated the chemical properties of this preparation. . . . In contrast to the original body which possessed the well-known characteristic, penetrating and lingering odour of artificial musk, the recovered product was absolutely odourless." These reports were published in Sawyer's "Odorographia" in 1894. The italics are not ours.

* * * Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents)

Legal Point.—Referring to the questions raised by a reader, issue September 16, page 458, Lord Cardross writes: "I have never heard of an allotment association. Is it run for profit or is it run for the benefit of members? In this case I fail to understand why, in the absence of any evidence that there is any authorised committee, anybody should take any notice of an agent who is apparently not acting under the orders of a responsible authority. The absence of a balance sheet is apparently a gross irregularity. The whole matter seems to me a scandalous one which should be investigated. The agent is apparently acting in a manner which would in my mind create suspicion as to his motives."

Single Rose Queen Alexandra (H.T.).—I enclose a photograph of the single Rose Queen Alexandra. I obtained this last autumn from the Rev. J. H. Pemberton, and it has done extraordinarily well. It has flowered twice, throwing up long shoots with a number of flowers on each. The colour is very pretty—yellow, edged with pink. I think it is interesting as a perpetual single Rose. The photograph was taken about three weeks ago.—JOHN M. KNOPP, *Linford Hall, Wolverton Bucks.*

Auricula Solomon Page's Champion.—The date 1841, quoted from the *Gardeners' Magazine* by Mr. William Badcock, page 475, issue September 30, as the year in which this variety was raised, is obviously an error. Perhaps it is meant for 1811, for the flower was well known and mentioned in every old florist's book between 1815 and 1841. It was in its day one of the best green-edged Auriculas, and as I have already said (page 427), it appears to have been first mentioned in Emmer-ton's *Treatise of the Auricula* (first edition, 1815; second edition, 1819). It can also be found in Hogg's *Treatise* (first edition, 1820); in *Smith's Florists' Magazine* (1835), where there is a fine coloured figure of it; in Hogg's *Supplement* (1833), and others. Another coloured illustration of it can be found in Tyas' "Popular Flowers," first series, 1844. The late James Douglas, in his "Hardy Florists' Flowers" (1880), gives Page's Champion in a list of the best green-edged varieties at that time, so that it seems to have had a long run of popularity, and for all I know may still be grown.—C. H. P.

The Tomato Trial.—In the article "Trial of Tomatoes under Glass" in *THE GARDEN* for September 9 I notice the writer says, "After the plants had formed their first truss and had been severely checked they were planted," &c. Being but an amateur in Tomato growing, I have wondered in what way the plants were severely checked and for what purpose. Were the leading shoots stopped to make the first trusses swell their fruit, or what? I have noticed that some plants I have growing in a cold greenhouse have produced fruits on the first truss, while others have not, and if possible, I am anxious to get fruit another year on the first truss, in all cases, on account of it being earlier and more likely to ripen.—J. H. T. [The plants in the Wisley trial to which reference is made were kept in small pots until the first truss of fruit had set. They were then planted out in good soil. The object of giving them a check or starving them till the first truss is set

is to ensure a bunch of fruits low down on the stem. This not only ensures early fruiting, but prevents running to wood and foliage without fruit, as might be the case if it were not for the fruit acting as a check on rampant growth.—ED.]

Bottling Fruits.—I am very glad indeed to see that readers of *THE GARDEN* are taking up the subject of preservation of fruits by sterilisation in bottles. A question was asked in the "Correspondence" page, issue September 23 by Mrs. S. Montagu Burrows, why Green Gage Plums and Rhubarb will persist in going to the top after bottling. "Anne Amateur" replies: "However carefully the fruit is packed in the bottles, owing to a certain amount of evaporation in cooking, which cannot be precisely estimated, some of the bottles will want filling up with a little more fruit." If up-to-date methods are



THE PERPETUAL-FLOWERING SINGLE ROSE QUEEN ALEXANDRA.

adopted—that is, patent bottles, with rubber bands and glass stoppers, such as Mrs. S. Montagu Burrows mentions—evaporation is practically nil; air is expelled from the bottles by heating and a vacuum is created, the outside air pressing on the glass stoppers preventing them from being displaced, so that when cold the whole thing becomes hermetically sealed, and the fruit is prevented from further decay. If the bottles have to be opened after being sterilised as "Anne Amateur" suggests, there would be a serious risk of the fruit being contaminated by micro-organisms unless re-sterilised. The chief cause of fruit rising to the top of the bottles after sterilising is due to excessive heat, and not evaporation. No fruit should be subjected to a higher temperature than 150° Fahr., which should be allowed to rise slowly, never more than 2° per minute, until 150° has been reached, then kept at as near that temperature for at least an hour. Most of the germs will be destroyed,

the air driven out, and a vacuum produced in the bottles. At present we read daily in the newspapers that large quantities of Plums are being wasted for the want of sugar. Now, if small and large growers alike would only realise how simple a process the preserving of fruit in bottles is, we should hear less about the wastage. There should be no waste now, more especially as no foreign fruits are being imported to this country. Sugar is unnecessary when bottling fruits, although most people think a syrup made from sugar assists the keeping qualities of the fruit. This is not the case. Water is far more suitable and less trouble, more especially when we are experiencing a sugar shortage. Also, less sugar is required to sweeten the fruit when served.—GEORGE STUART, *Edinburgh.*

Roses Dorothy Perkins and Lady Gay.—There has always been a good deal of confusion between these two Roses, and The Farquhar is almost as like unto them as they are unto one another. Dorothy Perkins was introduced by Jackson and Perkins in 1901, and it is said to have been the result of a cross between Rosa Wichuraiana and Mme. Gabriel Luizet. Lady Gay and The Farquhar were both introduced in America in 1903, though it was not till two years later that they were distributed in this country. The Farquhar was raised by Dawson from a cross between Wichuraiana and Crimson Rambler. But Walsh, the raiser of Lady Gay, has not divulged its parentage. It could not, however, have been a sport from Dorothy Perkins, as that variety had only been issued two years before. Although these three varieties are so much alike that only one of them is really wanted, and although the National Rose Society has quite rightly bracketed Dorothy Perkins and Lady Gay as synonymous for exhibition purposes, they are really quite distinct varieties, and can be recognised from one another by experts. In Lady Gay all the stems are much more flexible than in the other varieties, consequently the trusses are nearly always pendent. This flexibility of stem will be forcibly brought home to anyone who tries to stage a vase of Lady Gay for exhibition. In my experience Lady Gay produces no autumn blooms. In Dorothy Perkins the stems are much more rigid, and the trusses often stand up boldly. In many seasons—the present one, for example—Dorothy Perkins often gives a profuse display of autumn bloom; I have even gathered flowers on Christmas Day. With me Dorothy Perkins is much more liable to mildew than either of the other two. The Farquhar is the most rampant grower of the three, and makes an excellent tall weeping standard. The trusses are somewhat smaller, and the individual blooms thinner and show a little more white at the base of the petals. The stalks of the individual blooms are covered with fine glandular hairs, which are not much seen in the other two varieties. Had neither of the other two been introduced there is no doubt that The Farquhar would have caused a great sensation; but as things are it has never been much grown. Of the three I consider Dorothy Perkins the most valuable on account of its autumn blooming and its more rigid stems. From my own experience I cannot endorse the claim sometimes made that the flowers of Lady Gay are larger and deeper in colour than those of Dorothy Perkins. I think this is a question of soil, treatment and environment.—A. H. WILLIAMS, M.D., *The Moa, Harrow-on-the-Hill.*

Damson Merryweather.—What a splendid introduction this has proved to be! I planted several young trees when it first came under my notice. They commenced to bear the first season, and have not failed once since. This year these are bearing unusually heavy crops of fine fruit. The older varieties of Damsons seldom commence to bear heavily until the trees have attained a good size.—E. B.

Scentless Musk.—To me this is one of the most remarkable incidents in relation to plant life which has ever come under my notice, as the time was when *Mimulus moschatus* was considered to be one of our most deliciously scented plants, and I knew of no case where the true variety was not scented. Now I know of none where it is! We grew large quantities here, but a few years since it became quite scentless, and has not shown the slightest trace of returning. This is a problem for our scientists which I hope they will be able to unravel.—E. BECKETT *Aldenham*.

— I do not think the fact of Musk having lost its scent would have been remarked had not perfume been the only thing the plant possessed to recommend it. There are many other plants which have lost their character to a far greater extent, for we know of many which in their wild state are injurious, if not positively poisonous, that have been rendered quite wholesome by cultivation. Is it not possible that the first scented Musk, whether a seedling or a sport, acquired its fragrance in correlation with some other deviation from the type? Although perfume was associated with the deviation at the beginning, it does not follow that it will continue with it to the end; and if fragrance was in some way the result of the youthful strength of the deviation, we ought not to be surprised at its loss during the old age of the variation, for I presume there is an old age, with the attendant loss of certain characteristics, in the vegetable kingdom as there is in that of the animal.—W. BICKFORD.

Economy in the Garden.—In a pamphlet bearing this title, recently issued by the Royal Horticultural Society, there is a piece of advice which I expected some of the vegetable specialists of *THE GARDEN* would have taken note of before this. In order to economise labour, the advice on page 7 is to "Sow Cabbage and other Brassicas where the plants are to grow and not in seed beds. The seed will cost more, but the saving of labour will more than repay the cost." Such a course is so contrary to the practice generally followed, and I for one fail to see the utility of it. The opinion of others would, however, be much appreciated. I notice your correspondent E. Molyneux, in his "Notes on Vegetables" in *THE GARDEN* for September 16, does not recommend such a course to be followed.—H. P.

The Bravoa-Polianthes Hybrid.—I was interested to see the mention of the Bravoa-Polianthes hybrid (*Bravoa geminiflora* × *Tuberosa*), and that it has proved hardy, in Mr. Bowles' "Notes from Myddelton House Garden" in *THE GARDEN*, issue September 23, page 457. The cross was made in 1903, and the first seedling (out of five) flowered in 1907. After arriving at the flowering stage they were grown entirely in a cold greenhouse. The hybrid was described and illustrated by Mr. A. Worsley in the *Journal of the Royal Horticultural Society* in 1911 under the name *Polianthes* × *Blissii*. As Mr. Bowles notes, it does not show much of the *Tuberosa* parent, but it is quite fertile with its own pollen, and interesting results might be expected from its seedlings. Crossed again

with *Polianthes tuberosa*, the size of the flowers might be increased and the *Tuberosa* scent enhanced without losing the delicate tints of cream, salmon and orange of the hybrid.—A. J. BLISS.

A Scene in the Garden at Maer Hall, Staffordshire, July, 1916.—Maer Hall is one of the "stately homes of England," whose glory is the broad expanse of her magnificent lawns. God bless the mowing-machine and its contrivers and improvers. God bless petrol and those who have harnessed it to this great garden implement. Shades of Stephen Switzer who see what you see! What would he have said who, with but the scythe to trim his grass, could write of it 200 years ago as that wherein we excelled all other nations, and "which is indeed the Glory of our Gardens"? "But Linden saw another sight." War-time came and the staff of gardeners at Maer was so reduced in number that it was no longer possible to "dress" the wide expanse of turf. Wisely and usefully, then, Mrs. Harrison decided that save for a small

thinned, Dutch hoed once only, and no bed could have been more promising in its early stages. The other bed did splendidly, treated in the same way, except that it was hoed at least half a dozen times, and there has not been the slightest sign of Onion fly. We have to-day lifted and taken the Onions inside—a fine sample of between forty and fifty bushels from six rows nearly 100 yards in length. The most successful way of treating spring-sown Onions with which I am acquainted is to sow the seed moderately thinly the first week in February in boxes, raise in a cool house or frame, and plant out direct from the seed boxes, 4 inches to 6 inches apart, on well-prepared ground. The plants are seldom touched by the Onion fly, and though these will not make exhibition bulbs, they will prove to be most serviceable. I hope, however, in the near future to be able to introduce an Onion which, when sown in the autumn, will last considerably longer than those sown in the spring, and will prove to be practically



HAY FROM THE LAWN AT MAER HALL.

part immediately in front of the house, the whole of the eight or ten acres should be made into a hayfield, thereby, as it were, killing two birds with one stone. The practical result has fully justified the experiment. A heavy crop of hay of excellent quality has been carried, and as one of the last loads was on its way down the long drive it was "snapped" by Miss Rosamund Harrison, and this is the picture which appears above. A lasting memory of the mark of war.—JOSEPH JACOB.

Should Onions be Thinned and Hoed?—I have carefully read the article on the above by Mr. C. F. Adams, and to me it is interesting, as I have had an unusual experience this year with two large beds about 400 yards apart. Both of these were sown late—not before the first week in April—owing to the bad conditions of the weather and soil, and both were treated much in the same way and the same varieties sown. One was entirely destroyed by the Onion fly, so much so that I cleared the ground and prepared it for planting Cabbage some weeks since. The Onion seed was sown fairly thinly, never

immune from the terrors of the Onion fly.—EDWIN BECKETT, *Aldenham*.

— Several points in Mr. C. F. Adams' note on this subject are very interesting, and if the instructions result in the growing of fine crops of bulbs, the main point is gained. I have always been taught to keep a loose surface soil during the early stages of the growth of Onions, and to thin out early where the plants are decidedly too thick in the rows. This has been my practice for many years. My Onions keep till young ones are again available. With regard to the Onion fly, I had no loss through it, as the seeds were sown as early as the condition of the soil would allow, so that the skins of the resultant plants were fairly hard by the time the fly was about in May, and soot was freely used then, as it is distasteful to the fly. I always understood that the fly punctured the Onion stem above the soil level, and that the grub which hatched worked its way down to the tiny bulb. Cultivators should grow more Onions than is usually the case.—GEORGE GARNER.

THE ROSES OF SEPTEMBER

"O gather we the Rose, the Rose,
While yet in flower we find it,
For Summer smiles, but Summer goes,
And Winter waits behind it."

SEPTEMBER is a month when Nature may often be found in her kindest mood. In an ideal September the sun shines with pleasant but not excessive power, and the winds blow lightly and gently from the south. In such a month our Roses bloom again almost as vigorously as they did in June, and the charm of these later flowers has a great appeal, their colouring often being enhanced by this tempered sunshine. Four months of Rose blooming are behind us, and we feel that when September merges into October,

bush Roses flowering well into the late autumn. With us they grow into bushes about 4 feet high; in a stronger soil they may very possibly attain to 5 feet. They flower all through the summer and early autumn. Moonlight is a specially delightful variety. Its pretty white blooms are well set off by the dark green foliage and coppery stems; these stems are wonderfully strong and erect. The flowers are charming in all stages, the half-open bud being very perfect in shape. In Messrs. Paul and Sons' group I noticed some very pretty sprays of Queen of the Musks, also a dwarf perpetual Musk hybrid.

Another Rose that I was glad to see well shown in the autumn was Messrs. Frank Cant's single Hybrid Tea Mrs. C. E. Salmon. It was very



A BOWL OF SEPTEMBER ROSES.

though should the weather be propitious we may still enjoy many Roses, yet the glory of the Rose season is over; the hand of winter will soon touch our favourites, and they will rest awhile from their happy blooming.

The National Rose Society's Autumn Show is a very good object-lesson for those who wish to see what types of flowers are at their best during September. The great stands of rampant climbers, the Wichuraianas and the Multifloras, which are always a feature of the Summer Show, are conspicuous by their absence; but the Hybrid Teas and Teas, the Pernetianas and the Polyantha Pompons are shown in profusion. This year one of the most successful exhibits was a stand of cut Roses beautifully put up by the Rev. J. H. and Miss Pemberton. It was largely composed of Roses of the former's introduction, such as Queen Alexandra, Moonlight, Danæa, Daybreak and others. Many of these are Hybrid Musks, and it is very pleasant to have some of these

attractive when exhibited at the City of London Rose Society's show in July, but here it had to share the honours with such varieties as Lady Curzon and Mrs. O. G. Orpen. I know of no other single Rose of that real soft pink which flowers in the autumn. A lovely bowl of Mrs. C. E. Salmon was one of the most attractive exhibits in the ladies' artistic section at the September show.

Among the bunches and vases of Roses, I noticed that Mrs. Amy Hammond, Mrs. John Laing, Mrs. George Norwood, British Queen and many others were shown just as perfect in colour and shape as at the summer exhibition, though somewhat smaller in size. A beautiful yellow Rose called Christine was shown by Messrs. McGredy. It was somewhat the shade of Rayon d'Or, but a deeper yellow and a very much prettier shape. The glossy green foliage was abundant and the stems smoother than in many of these modern yellow Roses. This Rose received the National Rose Society's

gold medal. The same firm showed Louise Baldwin, also a yellow Rose, but of a softer shade, with more apricot in it.

If we leave the show and the cut Roses and go back to the gardens, we find that in September the Tea and China Roses are flowering well. The sweet old Marie van Houtte and the newer Mme. Antoine Mari are generally at their best in our garden during September. Mme. Jean Dupuy, Mme. Lambard, Corallina and G. Nabonnand are all Teas that flower well during this month. Among the Chinas the orange rose Comtesse du Cayla and the rose and yellow Mme. Eugène Résal are very free in the autumn, and the flowers are less fugitive than in the great heat of summer.

The crimson Roses of September are well represented by General Macarthur. During the first half of the month I was staying in Leicestershire, in a garden where Roses are thought much of. There some standards of General Macarthur have grown to magnificent shapely heads, and were covered at that time with their bright, sweet-scented blooms.

Coming home to South Hertfordshire, we found General Macarthur was eclipsed by Mrs. Edward Powell, the beds of which were brilliant with tall blooming stems of this free-flowering crimson Rose. And now at the end of the month, writing from North Wales, I can tell of a Rose garden not far from the sea where Mrs. Edward Powell, only planted last autumn, is flowering grandly. Other Roses I have noticed doing well are Caroline Testout, with huge pink blooms, and the China Mme. Eugène Résal mentioned before.

Red-Letter Day is an addition to our bright red Roses which flower in autumn. This is a variety which seems to be continuously in bloom, and there is no more brilliant-coloured Rose in the garden. It is unfortunate that it has so weakly a flower-stem.

I have only mentioned a few of the varieties which have struck me specially during this and other Septembers. As a matter of fact, nearly all the Teas, Hybrid Teas and Chinas will flower abundantly throughout this month if they have been well cared for during the summer; the dead blooms quickly removed, copious water given should there be a long drought, and, most important of all, the beds kept constantly hoed, so that the few top inches of soil should act almost as a mulch to the plants.

It is human nature to care most for the pleasures which are passing, and so as summer merges gently into autumn we prize those late Roses of September perhaps even more than we did the early ones of May, when the promise of summer with all its bounty was before us. WHITE LADY.

ROSE WHITE DOROTHY

FOR continuing the display in the climbing Rose section the above is useful, as it is later than any other white variety in opening its flowers. The ordinary form has many patches or stripes of pink in its petals, which, when a white Rose is required, is somewhat detrimental. I find Mrs. Littleton Dewhurst, sent out by Messrs. Pearson of Chilwell, is much the best variety. In growth and freedom of flowering it is all that could be desired; the trusses of pure white bloom hang in graceful profusion. Those who require a white climbing Rose for a pillar would do well to plant Mrs. Littleton Dewhurst.

E. M.

AUTUMN SOWING OF SWEET PEAS

BY THOMAS STEVENSON.

THE advantages to be derived from the autumn sowing of Sweet Peas are sufficient to warrant the universal adoption of the system, and this does not apply simply to the exhibitor, but to everyone, whether exhibitor, grower of cut flowers for market purposes, for garden decoration or ordinary cut flowers for the home. By this system of sowing, the plants are naturally stronger and hardier, and thus better able to resist the ravages of slugs and the variable weather conditions which invariably prevail in the spring of the year. The rooting system is such that it enables the plants to get a good start while the weather is cool, and though the plants come into bloom earlier, the hold they have of the soil enables them to withstand the hot weather better, and so a very much longer season of bloom is secured. This in itself is a decided advantage, but when one considers that the quality and size of the flowers are 25 per cent. better, it is still more so. Very many growers will say they know all this, but there are others—and a great number, too—who still sow in the spring, and it is to these I would still further emphasise the necessity in these times of getting all the good they can out of the plants.

There are two points necessary to be observed to be quite successful, and they are, first, the date of sowing and, secondly, there must be no coddling after the young plants are through the soil. In the South of England between October 10 and 20 is the best time for sowing; further North, from ten days to a fortnight earlier may be an advantage. For sowing, pots, pans or boxes may be employed. Two seeds in a long, large 60 is a good system, and in this the seedlings may remain till planted out. If sown thickly in larger pots or boxes, they should be potted off singly as soon as strong enough, or in the turn of the year. A cold frame is the best place in which to winter the autumn-sown plants, and it is of vital importance that the lights are removed entirely on all fine days; in fact, they may be kept off except when it is either raining or freezing. If kept too wet, the plants soon get soft and are easily damaged by frost. On the other hand, if kept just on the dry side they keep hard and it takes a lot of frost to injure them. Rarely is it necessary to water them between the months of November and February, but after this, if there is no danger from severe frost, they will take quite a lot of water. Although I advocate removing the lights on all possible occasions, it

is wise not to risk the plants being too badly frozen, and in the event of very severe weather, steps should be taken to protect them. I have known the plants to be frozen hard for fourteen days, but by protecting them from light and air through the thawing process no harm has resulted. It is during such a period when the frames are covered that there is danger of mice doing a lot of damage, so that it is a good practice to keep a few small pieces of bread, on which is spread a little phosphorous paste, about the frame. Prevention is better than cure. With these precautions the

blush, Agricola; carmine, John Ingman; cerise, Honour Bright; cream, Tea Rose; cream pink, Margaret Atlee and Peace; lavender, R. F. Felton; crimson, Charity; maroon, Warrior; orange, Robert Sydenham; orange scarlet, Thomas Stevenson and President; mauve, Lady Eveline; orange pink, King Alfred; picotee, Jean Ireland and Elsie Herbert; rose, Rosabelle; salmon, Barbara; scarlet, Mrs. C. P. Tomlin; white, Constance Hinton; bicolors, Mrs. Cuthbertson and Mark's Tey; purple, Royal Purple. A few new ones worth trying are Old Rose, Tea Rose, Hope, Surprise, Mavis, Mrs. C. P. Tomlin, Felton's Cream, Lady Hunter, Anzac, John Porter and Verdun.

For market purposes the following are to be depended upon: White, Nora Unwin; lavender, Lavender George Herbert and R. F. Felton; salmon, Inspector; orange scarlet, May Unwin; mauve, Queen of Norway; pink, Hercules; cream pink, Margaret Atlee; pale pink, Elfrida Pearson; scarlet, Scarlet Emperor; cerise, Fiery Cross and Honour Bright; blue, Princess Mary.



A SELF-SOWN FIG-LEAVED HOLLYHOCK OVER 13 FEET HIGH IN DR. HEMSLEY'S GARDEN.

THE FIG-LEAVED HOLLYHOCK

BY W. BOTTING HEMSLEY, V.M.H.

I HAVE cultivated this highly ornamental, free-growing Hollyhock (see current volume of THE GARDEN, page 422, with an illustration) for about twelve years, first in the garden of my official residence at Kew, and since my retirement here at Strawberry Hill. My first plants were raised from seed obtained from the Herbaceous Ground at Kew. Whether the progeny of the seed thus obtained was pure *Althæa ficifolia* is a little doubtful, because the allied species hybridise freely and naturally. At all events, I also cultivated the common Hollyhock (*Althæa rosea*), mostly single-flowered varieties, and seedlings which sprang up spontaneously showed a blending of some of the characters of *A. rosea* and *A. ficifolia*. This was especially noticeable in the foliage; but as no critical examination was made,

no comparisons of flowers and leaves of different varieties, I can only generalise.

As the writer of the paragraph on page 422 states, *Althæa ficifolia* is of perennial duration, though the dictionaries class it with the biennial species. As to its native country, I should judge that it is the Levant—Eastern Mediterranean countries—rather than Siberia; but I have no means of settling that point at present. In the light sandy soil of Kew both of the species under consideration grew well, and even attained unusual stature. I have a photograph, taken in 1906, of a plant of apparently

plants may be successfully brought through the winter, and as soon as the ground (which should have been thoroughly prepared beforehand) is in a nice friable condition—possibly towards the end of March or early in April—they may be planted out, and if given careful attention and good conditions, cutting should commence quite by the end of May, the usual date here being about the 25th.

The selection of varieties is quite a matter of personal taste, but the following is a selection of the best in the various colours: Pink, Hercules; pale pink, Elfrida Pearson; blue, Margaret Fife;

normal *A. ficifolia* over 13 feet high, bearing flowers of some tint of red. The mixed seedlings and older plants I brought to Strawberry Hill at the end of 1908 thrive well in a heavy, somewhat clayey loam, some of them attaining dimensions almost or quite equal to those of the example photographed at Kew. Some of the original plants may still exist, but the majority have certainly been replaced by self-sown seedlings, and I have rejoiced these last eight years in a good annual display on the two long sides of my parallelogram of ground. Yellow or orange is the colour usually attributed to *A. ficifolia*, but the colours are almost as varied as and perhaps include more delicate and transparent tints than, the common Hollyhock itself.

NEW AND RARE PLANTS

FIRST-CLASS CERTIFICATE.

Sophro-Cattleya Sir Mervyn Buller.—A beautiful bigeneric hybrid demonstrating the *Cattleya* influence in fuller measure than in any we have seen hitherto. The rosy salmon sepals and petals clearly show a midway touch of both genera, while imparting an exquisite tone to the whole. Its red crimson, lightly peppered lip is a great asset to a novelty of rare beauty and charm. From Messrs. Armstrong and Brown, Tunbridge Wells.

AWARDS OF MERIT.

Cattleya Rhoda Langley Variety.—The sepals are of deep salmon tone, the petals coloured a warm cinnamon red, the large, much-goffered lip rich ruby crimson with golden reticulations. From Messrs. Flory and Black, Slough.

Brasso-Cattleya Oberon var. Majestic (*Brasso-Cattleya Digbyano-Mossiae* × *Cattleya Schrödera*).—The whole flower appears to be endowed with a delicate and beautiful shade of pinkish mauve, the handsome, slightly goffered lip showing a touch of yellow in the throat. From Messrs. Sander and Son, St. Albans.

Lælio-Cattleya Lady Manningham Buller.—The sepals and petals are of primrose and pale canary yellow, the handsome frilled lip of glowing crimson. A very fine form. Shown by Messrs. Armstrong and Brown, Tunbridge Wells.

Pyrus Vilmorina.—An attractive novelty with pinnate leaves and clusters of coral red fruits.

Euonymus latifolius.—It is a little remarkable that this old and attractive species, introduced upwards of fifty years ago, has not received recognition earlier. A hardy deciduous kind, with large, ovate, slightly undulating leaves, it is greatly attractive at this season by reason of the clusters of fleshy scarlet seed-capsules and brilliant orange fruits which are thrust forward as the pods expand.

Clematis Campanile.—A beautiful novelty which cannot fail to please, whether by reason of delicate colour or fragrance. The new-comer is herbaceous, 3 feet or so high, a hybrid, it is said, between *C. Stans* and *C. grata*, with mauve blue sepals and clusters of creamy white filaments in panicked frusses. A beautiful and distinct novelty. These three were shown by Messrs. George Paul and Son, Cheshunt.

Gentiana ornata Variety.—The latter is not yet determined, though it may be said that it is of exceptional vigour and beauty. The fine

blue flowers are erect, solitary, at the ends of procumbent stems bearing linear, lance-shaped leaves. A pan of it with a single plant had about a score of buds and blossoms, a few only being expanded. At this season it is valuable as well as choice. From Mr. Clarence Elliott, Stevenage.

Chrysanthemum Dick Barnes.—The colour is rich crimson, the plant 3 feet or so high.

Chrysanthemum Harry Thorpe.—Yellow, suffused rich orange. These two are decorative sorts of high merit and great flower freedom, valuable alike when disbudded or naturally grown. Ground plants and disbudded flowers were shown in each case by Mr. H. Thorpe, Lichfield, Chichester.



CLEMATIS CAMPANILE, A NEW HYBRID OF HERBACEOUS GROWTH.

The foregoing were before the Royal Horticultural Society on September 26, when the awards were made.

NEW DAHLIAS.

Yellow Prince (Collarette).—Primrose colour, with white collar. From Messrs. Dobbie and Co., Edinburgh.

Autumn Star.—An addition to the Star class. The colour is rosy salmon and yellow. From Messrs. J. Cheal and Sons, Crawley.

Moonstar (Cosmea-flowered).—White, with pointed florets. From Mr. J. A. Jarrett, Anerley.

Janus (Pompon).—A ruby crimson self of model form.

Marion (Pæony-flowered).—Salmon, with yellow base.

Gipsy (Collarette).—Ruby crimson florets and white collar.

Queenie (Decorative).—Golden, with salmony red suffusion.

Roweana (Decorative).—Fairly balanced salmon and fawn. These five were from Messrs. J. Burrell and Co., Cambridge.

Profusion (Decorative).—Of medium size, coloured rosy peach and shading to fawn. Uncommon, though not beautiful.

Cupid (Collarette).—The crimson florets are white tipped, which, with a white, flattish-inclined collar, renders it most distinct.

Kangaroo (Collarette).—The finest of this class without doubt. The colour is rich ruby crimson, and white, crimson-stained collar.

Lemur (Single).—The colour is intense glowing crimson, which, with blackish disc, golden-coloured anthers and dark stems, go to make up a flower of uncommon beauty. These four were shown by Mr. J. T. West, Brentwood, Essex.

Pastel (Giant Single).—A novelty in fawn and peach colour, very beautiful and distinct. From Reginald Cory, Esq., Duffryn, Cardiff.

Alex. Kennedy (Cactus).—Self ruby red, with finely pointed, incurving florets.

Mastiff (Decorative).—A distinct variety of rich amber yellow tone.

Ermine (Collarette).—An all-white flower, and good at that; the finest of its class we have yet seen. These three were exhibited by Messrs. J. Stredwick and Son, St. Leonards-on-Sea.

The foregoing Dahlias, having been adjudicated upon by a joint committee of the Royal Horticultural Society and the National Dahlia Society, carry the award of merit of the former and first-class certificate of the latter.

SIX BEAUTIFUL PERENNIAL ASTERS

VERY great improvement has taken place in these homely flowers within the last dozen years or so, and I will not go the length of saying that the half-dozen I am about to name are the best; but that they are very beautiful everyone must admit.

Beauty of Colwall.—This, the first of the really good double Starworts, is a very handsome plant, its pinkish lavender flowers being produced in great profusion. Excellent for cutting.

Feltham Blue.—This is one of the best large-flowered blue Asters. It gives very handsome spikes of bloom that are most telling in the garden, besides being very desirable for room decoration.

Robert Parker.—An old variety, but still one of the best. Its delightful soft lavender starry flowers are ideal for cut-flower purposes. It withstands rain better than most.

St. Egwin.—One of the best of all Asters. A well-grown specimen attracts attention everywhere. The soft pink flowers, although not so large as in many other varieties, are produced in the greatest profusion from near the ground-level to the top of the shapely bush.

Thomsoni.—One of the best dwarf forms and of a very pleasing shade of blue. Unfortunately, it does not appear to be over-hardy, as it is inclined to die out here.

Subcærulea.—This dwarf summer-flowering Aster is easily raised from seed and seems to come perfectly true. It, too, not infrequently dies out here in winter, damp, I think, being the cause. It is a delightful subject for cutting, besides being very telling when planted in clumps in the hardy border.

Preston House Gardens, Linlithgow. C. BLAIR.

NOTES FROM MYDDELTON HOUSE GARDEN

By E. A. BOWLES, M.A., F.L.S.

IF I were compelled to grow only one Dahlia, I should certainly choose *D. Merckii*, not because it is the smallest and hardiest of the family, but simply because I like it the best and should miss its soft rosy lilac blossoms so greatly. Of course, I must remember that we have not had a ground-penetrating spell of frost for over ten years, and therefore must not boast too certainly of its hardiness, but be contented with stating that some deeply planted roots have reappeared in full vigour every spring for the last four years, and no protection of ashes or litter was provided for them. A few roots should be lifted and stored away with the other Dahlias to make certain of the plant, or seeds may be saved, as, raised early and planted out in May, they are not long in producing plenty of flowers. Here it grows about 3 feet high, and forms a rounded mass of pretty, light green leaves, much paler and more finely divided than those of any other Dahlia, except the closely related *D. scapigera*, which, by the way, I seem to have lost this season. I miss its graceful white flowers, and must keep an open eye for it till I find it again, unless some fortunate possessor of the treasure reading this will kindly send me a root.

D. Merckii is a rather taller plant than *D. scapigera*, and its bipinnate leaves and lilac flowers also distinguish it. When they first open they are almost violet, but soon fade to a tender shade, too blue to be called pink, and too rosy to pass

as lilac without some qualifying word to mark their pinkness. I find they are just the same



DAHLIA MERCKII.

*Natural size.**(From a drawing by**E. A. Bowles.)*

to the colour scheme, and when a ring of golden, pollen-dusted stigmas protrudes from the dark boss the effect is, to my eye, perfect, especially when a little transmitted light shows up the reddish edges of the involucre bracts through the ray florets.

The individual flowers are borne on very slender stems of a length of six to eight inches, and are therefore very graceful both when growing, or used as cut flowers. They are very lovely arranged with other Dahlias, either in a vase to themselves to stand near contrasting colours, or rising above some larger, more solid flowers. They harmonise well with the light cerise pink of *Delice* or *Crawley Star*, and contrast delightfully with that good old purple maroon *Cactus Dahlia J. H. Jackson*. This last is one of the most useful of all for cutting,

and helps to make a pleasing deep tone in almost any arrangement of colours except where scarlet enters. I find it is especially good with the brilliant daffodil yellow of the new *Yellow Star*. This last I believe will prove a grand thing for cutting, as, being a little fuller than the other *Star* Dahlias, it lasts in beauty longer than they. The only trouble about single Dahlias as cut flowers is their habit of dropping the bright yellow pollen so freely. It stains tablecloths and is tiresome to clean off polished surfaces. A large vase filled with the nearly black *J. H. Jackson*, and here and there a pink *Delice*, is a great delight in contrasts.

I suppose few people grow the old green Dahlia, but I should be sorry to be without it. It is so good to cut and use as greenery for other Dahlias, and looks very well with white, orange or yellow kinds. It is a very curious flower, and is formed of repeated series of the outer foliaceous bracts of the involucre, or, to put it in more ordinary

language, we may say that the five little leaflets that stand out at the base of a Dahlia bud have in the green Dahlia been repeated in whorl after whorl instead of the scaly bracts, ray and disc florets that ought to succeed them, until the whole

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flower is just a rosette of these little stiff, green bracts. Occasionally the first and terminal flower of a shoot reverts to more normal Dahlia ways, and produces a wonderful flower with several ranks of crimson ray florets and a central mass of green bracts, reminding one of the green-centred double French Ranunculus.

The best new-comer of the garden just now is Aster Amellus King George, with flowers so large and so deep in colour as to surpass any other form of that good old plant. Salvia uliginosa, so satisfactory last season, has disliked the cold nights and dull days of this, and instead of having been a waving mass of sky blue for many weeks past, is only now coming to its best. It is very good, though, rising out of a large bed of the deeper blue Salvia patens, with a young Eucalyptus Globulus or two as dot plants.

Geranium Wallichianum is good now, both in its pink and Nemophila blue forms. They trail about very pleasantly in cool positions in the rock garden, and cover over spaces where bulbous plants reigned supreme in spring. I never noticed till this week that the pedicels bend at night until the flowers hang face downwards, and thus protect their pollen from the dews.

Hypericum sinense is making a brave show. The mild winters of the last decade have suited it and allowed it to grow into a fair-sized bush. Its flowers have longer filaments in comparison with their size than those of any other species I know, and this gives them a peculiar elegance, for when in a mature blossom the petals reflex, the stamens spread out well beyond the golden background of the petals and show up splendidly against the long, rich green leaves and red stems.

Euonymus latifolius is very finely in fruit; better than I have ever before seen it. It is a large specimen and stands on the crest of a mound in the rock garden, and its spreading branches are weighed down with the large, coral red, biretta-shaped fruits. Most of these have opened and show the orange scarlet seeds in their four angles, and in the evening sunlight the tree is a goodly sight. I used to say its large leaves hid up the fruits too much, but this season they only contrast pleasantly with the mass of glowing shades of red. As I cannot grow Rudbeckia maxima as I saw it last week in two of the best Cornish gardens, I consider the taller plant known as R. Herbstone my best Cone-flower at present. It is about as pure a yellow as one could wish for, and the central cone is small and unobtrusive compared with the large ray florets. It is about 8 feet high and makes a fine mass of yellow for the back row of a herbaceous border, and has a good effect rising out of dwarf plants, as its foliage is handsome.

Saxifraga cortusæfolia is now at its best, but will last on until S. Fortunei begins to blossom. Then it wisely goes to seed, as though it knew it could not compete with its handsomer rival. It is smaller in leaf and flower than Fortunei, but is valuable for a cool, shady place, as it provides a cloud of its white blossoms in such good time that they seldom get injured by frost. The handsomer Fortunei, on the other hand, seldom opens more than half of its buds here before a killing frost turns the whole plant to jelly.

BOOKS

Potato Leaf-roll Disease.*—Almost all growers of Potatoes in this country, in the garden as well as in the field, have met with the mysterious disease known as leaf-roll, in which the leaf, instead of being flat as in healthy plants, is rolled or curled in various ways, frequently discoloured, and far less efficient as a food-making organ than it ought to be, as is evident from the small number of tubers which the plant produces. Various suggestions have been made with regard to the cause of the disease, and three or four forms have been distinguished. Dr. Quanjer, in the publication we have before us, has dealt with



THE HANDSOME AND LATE-FLOWERING SAXIFRAGA FORTUNEI.

what is probably the most important of these, and has made some weighty contributions to our knowledge of it.

The characteristics of the disease are these: Young plants do not show signs of the trouble, but when about a month old the lower leaves become rigid and pale yellowish in colour, while the margins are rolled upward. Later the upper leaves also show symptoms of the disease. The discoloration is confined at first to the tips, but later spreads gradually over the whole leaf; while in some varieties a red or violet tinge is evident along the edges of the discoloured part, and the under sides of the curled leaves often have a bluish gloss, while the plants rattle as one passes among

* "Potato Leaf-roll Disease: Nature, Mode of Dissemination and Control of Phloëm-necrosis (Leaf-roll) and Related Diseases," by Dr. H. M. Quanjer. Wageningen: H. Veenman, 1916.

them. The affected plants are scattered here and there in the field, and the disease does not spread from one centre as would be the case with ordinary fungus diseases. Later still the leaf tissue dies here and there, starting from the tips and margins and causing brownish black spots to appear, which afterwards spread. Diseased plants grow slowly, and unfavourable conditions accelerate the development of the symptoms. When the conditions are particularly unfavourable, the plant remains quite small, and the seed tubers will be found unexhausted at the time the crop is lifted. Some plants are attacked only after considerable growth has been made, and these may produce a fair crop. Some varieties seem to be more susceptible than others. Most of the ex-

periments performed by the author have been done with the variety Paul Kruger (raised in Holland in 1896 by crossing Imperator with Wilhelm Korn). This variety was introduced to this country some years ago, and for reasons which appeal to the vendors of such things its unpopular name was changed from Paul Kruger, or President Kruger (by which it was also known), to President, and under that name it was widely grown both in Scotland and England. It was found to suffer increasingly from leaf-curl, and at last was practically discarded, not before an attempt was made to select healthy tubers and so to secure an immune stock, which was put on the market under the name of Iron Duke. This selected form, alas succumbed too. Magnum Bonum, another old and at one time very popular variety, has also been used; while a little observation on the part of growers will show that other varieties now in commerce are liable to the disease.

Two or three years ago Dr. Quanjer published an account of observations he had made, going to show that in plants affected with leaf-roll the phloëm was altered and its function interfered with. Now, the function of the tissue called phloëm (also known as soft bast, lying just outside the wood of stem and leaf veins, and on the inside of it as well in the Potato) is to convey food made in the leaves to various parts of the plant, so that if this tissue is destroyed, food carriage is prevented and the smallness of the crop is easily understood. Dr. Quanjer has extended and confirmed his observations, which met with some amount of criticism at the time they were first

published—mainly on the part of those who confused the form of leaf-curl with which he was dealing with other forms—and has made a series of experiments with the object of ascertaining the cause of this diseased condition of the phloëm.

Since the first appearance of the disease, watch has been kept upon it, and it has been found to increase in a district after its first introduction; while, as already noted, selection has given anything but certain results, although at first they appeared quite favourable. This uncertainty suggested that the disease was either communicable or that the Potato was subject to sudden and frequent mutations—changes produced by no assignable cause. Dr. Quanjer has now experimentally proved by well-controlled experiments that (1) the disease attacks plants from healthy tubers placed in diseased surroundings; (2) if

diseased pieces of Potato plants were grafted upon healthy stocks, the latter also became diseased, while other plants from the same tubers not so grafted remained quite healthy. Tomato plants similarly grafted also contracted the disease, but to a much slighter extent. (3) Infection took place when pieces of diseased tubers were grafted upon healthy ones. (4) Soil in which diseased plants had been grown carried the infection, and the infective power of the soil may (in badly tilled ground) be retained for so long as five years. (5) Plants growing in the neighbourhood of diseased plants often contract the disease, although frequently not to a serious extent in the first year, but in the succeeding year their tubers will produce diseased plants. (6) Experiments made with seedlings were somewhat inconclusive, but suggest the probability that the disease is also transmissible to seedlings.

All these experiments point to the contagious character of the disease, but the microscope and cultural experiments have failed so far to demonstrate the nature of the contagium, nor has injection of the juices of diseased plants reproduced the disease. It seems apparent, however, that some sort of virus is concerned, and that it often enters the plant by way of the root and may spread quite early in the season from diseased to neighbouring healthy plants, although the symptoms in these may not be very marked.

From the grower's point of view the practical points that emerge are these: Tubers from diseased plants, even when the disease is but slight, will produce diseased plants, and the symptoms of disease will be most marked when the conditions of cultivation are least favourable to the Potato plant. Susceptible varieties (perhaps all are susceptible, more or less) are likely to contract the disease when planted in infected soil; but in the first year the disease is not likely to be very serious. The remedy lies in the cultivation of Potatoes intended for seed purposes in uninfected soil and from healthy tubers. Considerable difficulties lie in the way of this, but until at least the nature of the contagium is known and the actual method of transference made clear, this is the only means likely to lead to the production of healthy stocks of this most important crop, so valuable as food and for industrial purposes.

TRAINING FRUIT TREES

BY H. VENDELMANS.

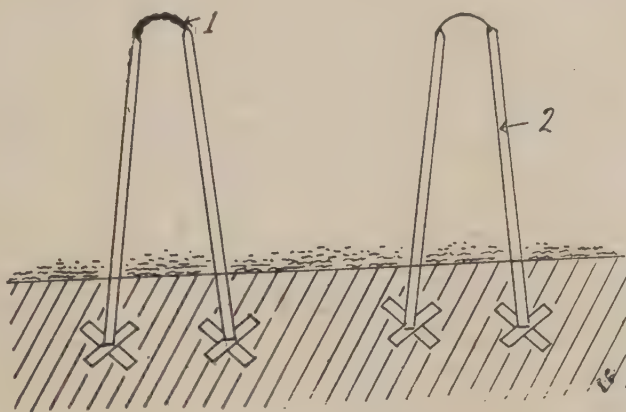
MANY people consider walls indispensable to the growing of choice fruit. They certainly are very useful where they exist, but it is an exaggeration to say that they are necessary. Moreover, walls have many disadvantages: they are very expensive to build and require skilled labour for their erection, and although they are said not to need keeping up, they certainly require repairs at regular intervals. Generally, walls are enclosures, so their outside cannot be used. Moreover, as boundaries they are built rather according to the shape of the enclosure than to the best aspect for fruit-growing, so that the fruit has to be chosen according to the aspect. Being built straight up, they give much and dense shade. When, as is rarely done, section walls are built inside the garden, they take up much room and increase the shade, to great disadvantage. Again, walls allow of root expansion only on one side, do not permit

of buds and leaves forming at the wall side of the branch, and restrict the light to one side also, so that coloration of the fruit only takes place on one side. All the leaves grow on one side and cover the fruit, so that in order to admit light even on one side it is necessary to remove leaves, which means work and deprives the tree of part of its energy.

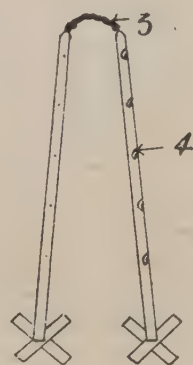
Walls evidently are not adequate for the production of choice market fruit; very often they do not even meet the requirements of private owners. To make good this insufficiency of accommodation different ways of training fruit trees have been introduced. None of all these systems, however, realises the numerous advantages of the reversed V system described below. The Λ is made of iron and the system consists of a certain number of sets provided with iron

so as to bend easily. The part to be buried in the soil may be bent a little also. The sets are placed at about $3\frac{1}{2}$ yards or 4 yards interval, the legs of the set being at a distance varying from 24 inches to more according to the height. Holes are made through the iron at convenient distances and the iron wire passed through them. The gauge of the wire used should not be too small, as it must be strong. These systems are directed from north to south, and when used for market growing, successive rows are placed at small intervals.

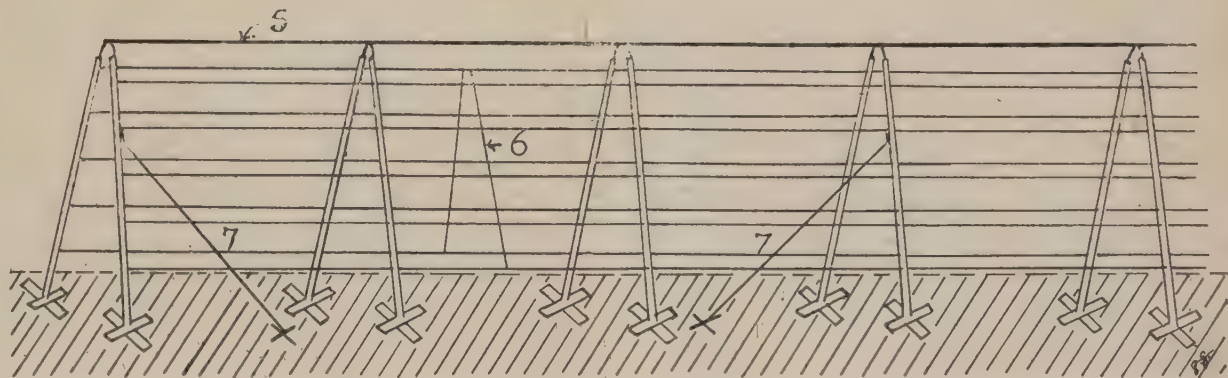
Let us now consider some of the advantages of the Λ system. First of all, its cheapness; no other system gives equal results for the same price. Its durability; it will last for a very long time and will require no repairs. Its stability is most remarkable, as it rests on two bases and



Sets put in place.



"Encoches" are sometimes used instead of holes, because they allow the wires to be easily removed.



Oblique irons are used on both sides of the set to make it steadier, while cross wires, of which one is figured in 6, allow of the training of small fruit.

REFERENCE TO SKETCHES.

1, Twisted. 2, Set. 3, Twisted. 4, Holes and "encoches." 5, Connecting rod. 6, Cross wires are sometimes used between main irons "set" 7, Oblique irons.

wires. The outside sets are in T iron, while the other ones are of flat iron. The outside sets have to be stronger, because the iron wires are attached to them and they have to stand considerable tension. The outside sets are also steadied by an oblique iron fixed at one end at about three-fifths of the height of the set and at the other end in the soil. The sets are all connected on the top by a flat iron rod. The sets, as well as the oblique iron, are fixed in the soil at about a foot deep by two cross irons. No masonry is required. If the systems are long, more oblique irons are placed at intervals but in opposite directions. The sets are made of iron about five-sixteenths of an inch thick and about $1\frac{1}{2}$ inches in width or more, according to the height, taking into account that commercial sizes must be adopted as being practically cheaper than those made to order. Close to the top the iron is twisted

is supported in every direction. No repairs are needed, and its upkeep is practically nil. It may be made at any height. No matter what its height the fruit is easily gathered, since the framework is quite capable of supporting a ladder. Any gardener can erect it, as it needs no masonry, and, when necessary, it can be removed as easily and put up again on another site. It enables two rows of fruit trees to be planted close together without injury, and it is suitable for any kind of fruit. It provides room for the roots all round the stems. It saves space, as crops—salads, Radishes, &c.—can be grown between and under the systems. If the rows are properly placed, it allows of perfect lighting of the whole system all day, so that better coloration of the fruit and good ripening are obtained. As the trees are trained slantwise, they give the smallest amount of shade

from top to bottom; but, above all, two parallel rows throw scarcely any shade on each other during the best hours of the day, so that not only can cropping between be easily carried out, but, where necessary, successive systems can be placed quite close together, leaving only a path between. The branches, receiving light from all sides, bear buds, twigs, leaves and fruit all round, so that to obtain a good coloration there is no need to remove leaves. The shade produced is mild, because it constantly moves. This system can be used everywhere, as it can be adapted to any aspect. The objection that iron wires may damage the branches by wind does not hold good if a wire of suitable size is used and the branches are attached by (sler, or string crossed between the wire and the branch. The branches being well secured, the loss of fruit through storms is as negligible as in fruit growing on walls.

WAR VEGETABLES AT WEMBLEY

I SEND a photograph of the prize vegetable produce which was on view recently at Wembley



WAR-TIME VEGETABLES AT WEMBLEY PARK.

Park Athletic Ground in connection with some splendid sports and an excellent concert which was given by the Metropolitan Railway War Service Corps with the object of raising funds to send out garments and comforts to the men at the Front, and entertaining wounded soldiers.

J. WARDLE.

PLUM JEFFERSON

For jam or for bottling this is quite one of the best Plums in cultivation. For the former purpose I regard it as much the best of all Plums. The amount of sweet, juicy flesh obtained from fully developed fruits is all in favour of good jam-making. Against a wall in any aspect except a northern one, well-managed trees crop regularly. Grown as a standard in the open, too, this Plum flourishes. Originally it came from America, where it was raised by Judge Buel and named in honour of President Jefferson; so the late Dr. Hogg informed us.

E. M.

FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

Peaches and Nectarines.—These have not been heavy crops this season, but directly the fruits are gathered the old fruiting wood may be cut out, which will give the new growth an opportunity to become ripened. Young trees that are growing too vigorously must be lifted and replanted.

Wall Trees.—If it is intended to replace any old trees on walls, discard any varieties, or fill up vacant spaces, now is a good time to prepare the loam, old lime rubble and a few wood-ashes. This will only be necessary when the site has been previously occupied by fruit trees. When trees are being planted in the soil for the first time, it will generally suffice if some crushed bones and lime rubble are added.

The Kitchen Garden.

Spinach.—The last batch will now require thinning, and the soil between the rows should be hoed frequently whenever it is sufficiently dry for such work to be carried out.

Cauliflowers.—Any heads that are exposed to the sun by day will be rendered useless if we

with manure if they are planted in their original stations. Some fine varieties can be raised from seed if it is collected from first-rate kinds.

Montbretias.—Some time during the present month the choice varieties of Montbretia may be lifted and stored until the spring. The ordinary kinds may be left in the soil, unless they are over-crowded. They should, however, be lifted every second or third year and be replanted in a bed containing decayed manure and leaf-mould.

Plants Under Glass.

Cyclamens.—These have been growing in cold frames, and now a batch of the most forward plants may be removed to a greenhouse where the night temperature does not fall below 50°. The surface of the soil should be freed from all foreign growth, and a light sprinkling of artificial manure may be given if the pots are full of roots. Water the plants carefully and keep them free from green fly and other insect pests. If not already done, seeds may be sown thinly in pans of prepared soil and then placed in a warm house. When large enough the seedlings may be potted off singly.

Calceolarias.—These may now be placed in their flowering pots and then arranged in a cool pit or greenhouse. They dislike heat and enjoy plenty of air. Green fly is often present, so the structure should be vaporised at intervals.

Azaleas.—Varieties of *A. indica* may be taken inside about this date, as nothing is gained by leaving them out during wet and cold weather. A cool house, such as a Peach-house, where plenty of air can be admitted, will suit them until the time arrives for placing them in more heat.

Fruit Under Glass.

Melons.—At this period of the year Melons will require very careful treatment, as sunshine is much less than formerly. Less atmospheric moisture will be needed, and the roots must not have an excess of water. Plants on which fruits are swelling may be assisted with a sprinkling of artificial manure, which should be watered in. Fire-heat will now be necessary, and a night temperature of 70° maintained.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Flower Garden.

Falling Leaves.—The falling leaves are now beginning to cause extra work in keeping walks and lawns in good order, and where extensive lawns have to be kept tidy, the lawn sweeping and collecting machine is a great saver of labour.

Spring Bedding.—It is sometimes difficult to make up one's mind to clear away the summer bedding plants, especially when a favourable autumn has prolonged their flowering season. However, if a good show of spring-flowering subjects is required, the sacrifice must be made and the beds cleared at once to give accommodation for these. Wallflowers that have been twice transplanted as recommended will move safely now with fine balls of fibrous roots, and the other subjects that have been got ready can be planted according to the programme of arrangements. Anticipating a scarcity of Tulip and Hyacinth bulbs, large quantities of Narcissi were lifted and harvested here in July, and these will be used freely along with the Wallflowers of different shades, Myosotis, Arabis, Polyanthus, &c. The fine strains of Variegated Kale also make very ornamental beds, either planted in separate colours or mixed, as well as for forming relief plants in beds of dwarf-growing subjects.

Wintering Old Bedding Plants.—A proportion of the plants removed from the beds are usually potted up about this time, either for furnishing cuttings in spring or for providing standard plants for next season. Where Geraniums are still grown in quantity, it is advisable to lift and pot up a number of these, and if a suitable house is not entirely devoted to them they may be successfully wintered in fruit-houses from which the fruit has been gathered. Pot them into 5-inch pots, or smaller ones if the roots can be got into

get any frost, so it is advisable to protect the curd's with a few leaves, or lift the plants and place them in a shed. Should there be a glut, a portion of the plants can be lifted and heeled in at the base of a north wall.

Cabbages.—If the soil is light it should be pressed around each plant with the foot. This extra firmness will check sappy growth, and the plants will then be more likely to withstand a severe winter. Later batches must be kept free from weeds and hoed occasionally.

The Flower Garden.

Marguerite Mrs. Sander.—This delightful Marguerite is a splendid subject for bedding, and, being white, some pretty combinations of colour can be secured if intermixed with other plants. I have used it with *Salvia patens* and *Carnation Britannia*; while this Marguerite, *Salvia* and *Calceolaria amplexicaulis* in association are also very effective. If no old plants were left for stock purposes, a few pots of cuttings may now be rooted and kept in a cool pit or greenhouse.

Delphiniums.—Where clumps of these fine plants have become unduly large, and the quality of the spikes has deteriorated because the soil has become exhausted in their immediate neighbourhood, they may be divided and given a fresh site, or the soil may be enriched

them. Standard Heliotropes, Fuchsias and Calceolaria amplexicaulis will all require similar treatment. *Lobelia cardinalis* should be planted closely together in boxes and wintered in a pot or Peach-house. Cordylines, Myrtles, Phormiums and Sweet Verbena (*Aloysia citriodora*) all require the protection of a glass structure during winter in these Northern districts.

Plants Under Glass.

Perpetual-Flowering Carnations.—Those showing flower-buds should now be moved to their flowering quarters, and fumigated if there are any signs of green fly.

Freesias.—The earliest batch of these will now have made considerable growth and should be moved to a shelf in an intermediate house. The growths will require supporting; a few twigs from a worn-out Birch broom serve the purpose well and require no tying. Weak liquid manure should be given at intervals to strengthen the flower-spikes.

Bouvardias.—The earliest of these should now be showing their flower-buds, and at this stage they will be greatly benefited by regular doses of liquid manure. The flowering shoots will require supporting, but this should be done with a view to keeping the plants as natural looking as possible. Only a few light stakes should be used, and in the case of young plants from spring cuttings, one stake will generally suffice. Each flowering shoot should be linked up to it individually with fine matting, so that the flowers when opening will present a drooping habit.

Bulbs.—Various bulbs are now coming to hand, and these should be potted up as soon as they arrive. Many growers are just discovering that large quantities of spring-flowering bulbs are British-grown, and the restrictions placed on Continental supplies will perhaps serve as a stimulus to home growers to extend this trade considerably. The selection in Tulips may perhaps not be such a varied one, but those offered should meet all present requirements. Gladioli in early flowering varieties, such as Colvillei, The Bride, Peach Blossom and Blushing Bride, are all useful for pot culture, but they must not be unduly forced. They do not require much root room; place the bulbs almost touching each other in a mixture of loam, leaf-mould and sand in 6-inch pots and stand them in a cold frame. They may be afterwards plunged in leaves to prevent the frost damaging the pots, but they must be removed again before growth has made much progress.

Early Flowering Chrysanthemums.—There is often a shortage of cut flowers about this time when a sharp frost has destroyed all the tender plants, but if a quantity of the later varieties of the summer-flowering Chrysanthemums are lifted and placed in pots or boxes, or planted in deep pits, they will provide quantities of useful flowers for a considerable time.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle. N.B.

ANSWERS

TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

PERENNIALS FOR SHADY NORTH BORDER (*Georgian*).—There are many good plants that would do quite well in a north border, but when to this is added the shade of trees the case is different. We are putting

it this way because of the failure of ordinary bedding plants to bloom, and the fact that these also become "leggy" shows that the shade is considerable. If of some density, with the trees overhanging the border, it might be best to turn it into a fernery. If not, and you will give us some idea of the extent of the shade, how near the trees are and whether the roots are likely to have penetrated the border, we will give you a suitable selection for the purpose. The extent of the border and the kind of trees referred to would also be of material assistance. Is the soil of a light or heavy nature?

ANTIRRHINUM DISEASE, GOOSEBERRIES, AND SILVER-LEAF (*L. B. W.*).—Sulphide of potassium, half an ounce to a gallon of rain-water, should, if early applied, arrest the spread of the former, and is likely to be more effective if a little soft soap is first dissolved and mixed with the solution. This renders the spray more adhesive, always an important item. Very light spraying is best, in order that it settles mist-like on the plants. It is important to treat all parts of the plant, i.e., the under surfaces as well as the upper surfaces of the leaves. Early evening is the best time. Of Gooseberries suited to your purpose, Crown Bob, Lancashire Lad, Dan's Mistake (red sorts), Leviathan and Trumpeter (yellow), Fearless and Telegraph (green) and King of Trumps and Whitesmith (white) would be a good set. Some of these—Crown Bob, Lancashire Lad and Whitesmith—are probably upwards of 100 years old. Size, however, in these things is very much a question of cultivation and disbudding. The heaviest red Gooseberry of which we have record is Top Sawyer, 26dw. 17gr. For high dessert flavour, Langley Gage, Langley Beauty, Golden Gem and Forester should be tried. Unless your Plum trees were hopelessly infected by silver-leaf disease, we should not have destroyed them, preferring rather to have cut away and burnt the affected parts and tried remedies. As yet, however, no certain remedy is known. The injecting of sulphate of iron into the roots and branches of the trees or incorporating it with the soil has in some instances been stated to show signs of improvement, though not of a nature to suggest a cure. Some gardeners, however, consider the disease due, in some measure at least, to excessively wet seasons and to high feeding, though neither has been fully established. One gardener we know declared with some emphasis that he had rid himself of it by treating his borders freely with chalk, a simple matter indeed if really effective. We have not seen him for some time past, and for the moment do not know his whereabouts, hence are unable to further enquire into the matter.

TREES AND SHRUBS.

FLOWERING SHRUBS UNDER PINES (*S. H. B.*).—The following shrubs would be likely to thrive beneath the semi-shade of the trees mentioned: Azaleas, Rhododendrons, Gaultheria Shallon, Heaths in variety and Berberis Aquifolium. They should be planted in irregular-shaped masses in as natural a manner as possible.

WALL PLANTS (*A. H. R., Hayward's Heath*).—The following wall plants are likely to suit your purpose: Crataegus Pyracantha, Hydrangea petiolaris, Jasminum nudiflorum, Clematis montana var. rubens, Clematis Armandii, Rosa bracteata, Wistaria chinensis and Tecoma grandiflora. The last two are very vigorous-growing subjects and should be given a high wall. Tecoma grandiflora ought to have as much sun as possible; the others will thrive in either aspect. For a northerly aspect any of the Jackmannii Clematises might be tried.

THE GREENHOUSE.

BLACK STRIPE DISEASE OF TOMATOES (*G. B. B.*).—The Tomatoes appear to be attacked by the black stripe disease, due to the growth of bacteria in the tissues, in all probability. Spraying for this disease appears to be of no avail; and in addition to the removal and destruction of diseased parts and the suppression of insect pests which probably carry the infection from plant to plant, the raising of the temperature to about 120° Fahr. by closing the houses early on a sunny day seems to be the most effective cure.

BLACK CRUST GROWING ON GREENHOUSE STAGING (*A. M. C.-S.*).—The growth of which you complain is an alga, a plant which delights in the conditions existing on the stage of a moist fernery. Something could be done to check its growth by occasionally pouring boiling water over the gravel, or even by watering it with a weed killer. The latter course would, naturally, be attended by some risk, and both would prevent the growth of Fern spores if carried out efficiently, as the spores of the alga and of the Ferns require like conditions for germination. We do not think that a small quantity of the alga would have a very harmful effect if on the sides of the pots, and in any case a periodical scrubbing would free them.

WHERE TO OBTAIN A BEGONIA (*Mrs. L.*).—The Begonia of which a sketch was sent is undoubtedly one of the varieties of Begonia Rex. We regret being unable to give you the name, as there are so many different forms. In order to obtain a plant, your better way would be to apply to Messrs. H. B. May and Sons, Dyson's Lane Nurseries, Upper Edmonton, who grow a large collection, and from whom no doubt this particular variety could be obtained. We, however, question whether you will be able to get a plant in which the markings are as clearly defined as in the sketch sent.

HUMEA ELEGANS IN BAD HEALTH (*E. E. H. E.*).—Humea elegans is in all stages very particular in its

cultural requirements, especially in the matter of water, for an excess will quickly cause the lower leaves to die off, and the plants ultimately perish. For the successful culture of Humea elegans the better way is to sow the seed in June, and place in a close frame or greenhouse. It does not take long to germinate, and when the young plants are sufficiently advanced they should be potted singly in 3-inch pots, which must be clean and effectually drained. A suitable compost for the first potting may be made up of equal parts of loam and leaf-mould, with a liberal sprinkling of silver sand. They may be grown in a frame during the summer, giving plenty of air and shading from bright sunshine. As cool a position as possible should be assigned them during hot weather. When the pots are well furnished with roots, the plants may be shifted into pots 5 inches in diameter, using more loam in the compost, say, two-thirds loam to one-third leaf-mould, and still a liberal quantity of silver sand. Kept in the frame and given all the air possible, they will form good sturdy plants by the time the nights grow cold, when they must be removed to the greenhouse. Throughout the winter they need only to be kept safe from frost and should be allowed a circulation of air whenever possible. By the end of February they should be put into their flowering pots, which may be 7 inches or 8 inches in diameter or even more. When well furnished with roots, occasional doses of liquid manure will be helpful. While an excess of moisture is harmful, drought is also injurious.

ROSE GARDEN.

ROSES FOR DROOPING OVER STREAM WALL (*Rosalie*).—There are many lovely Roses that will answer to the same treatment as Dorothy Perkins, illustrated in THE GARDEN on September 2, page 430. One of the best would be Silver Moon, a lovely big single; also Jersey Beauty, American Pillar, Miss Flora Mitten, Evangeline, &c. Good perpetual-flowering kinds are Sheilaigh Wilson, Bardou Job, Moonlight, Danæe, Gerbe Rose, Jessica, Trier and others. Rosa Pissardii would be rather too rigid, but it could be worked in with others. We advise planting about 6 feet apart.

ROSES BADLY MILDEWED (*E. C. T.*).—We fear your Roses are in a bad way, and advise you to replant them all at the end of October. Have the soil deeply dug, and work in a good dressing of lime or powdered chalk. You may cut the present year's growths back to about a foot in length. Do not trouble about the mildew now, but when you move the plants you may cut off all the foliage. You will find this treatment will produce a more luxuriant growth next year, and doubtless the plants will grow away from the ravages of mildew. The pest that has eaten the foliage is the slugworm. This can do no more harm. Another year spray early with tobacco wash.

FRUIT GARDEN.

INJURY TO VINES (*J. McB.*).—The Grapes were quite mouldy when they reached us, so that we cannot be quite certain what they looked like, but from your description we have little doubt that they are suffering from being "scalded" through some cultural error, such as insufficient ventilation or too great an amount of moisture in the house. The mildew on the leaves would be encouraged by this condition of things, which should receive attention, and, in addition, flowers of sulphur should be dusted upon the leaves or painted upon the pipes.

FIGS TURNING MOULDY AND FALLING OFF (*W. F. M. C.*).—The fact that your tree is growing on a wall out of doors and not under glass makes no difference as regards the fruit becoming mouldy. The cause is the same—too cold and damp an atmosphere. Had the weather been hot and dry at the time, the fruit would not have gone mouldy. Toads and Strawberries.—Strawberries on the point of ripening, especially if the fruit comes in contact with the soil and it is at all wet, are frequently infested with the minute grubs mentioned by you. It is the point of the fruit which is usually attacked, and as this part is most out of sight, how are we to reconcile your theory with the proof advanced by Miss C. M. Black Hawkins in THE GARDEN of August 19, page 403, namely, that a toad never attacks a creature it does not see move, following the true sporting instinct?

MISCELLANEOUS.

FUNGUS ATTACKING PEARS AND JUNIPER (*J. R. N.*).—The evidence afforded by the specimens of Savin sent is not quite conclusive of the attack of Gymnosporangium, and we think it would be worth while waiting until next April or May and then making another examination before destroying the bushes. The bright yellow out-growths on the swollen parts of the stems will then leave no doubt if the fungus is really there. The rust on the Pear does, as a rule, no very great amount of damage.

TO DISPOSE OF EVERGREEN TRIMMINGS (*F. C. T.*).—However treated, the trimmings of the different subjects named by you will take a very long time to decay, and in a small garden it is almost impossible to keep pace with the ever-increasing quantity. By far the most satisfactory plan is to burn them, which, even with the restricted hours during which fires are allowed, is not a difficult matter. The old idea of a smother fire must be discarded, and care taken that all the trimmings are thoroughly dry before any attempt is made to burn them. To ensure this, they must, when the weather is bright and the sun shines, be spread out as thinly as possible and repeatedly stirred about. This will reduce them to such a state that they will burn rapidly, and a couple of

hours will suffice to get rid of a considerable quantity. In burning, avoid putting too many leaves on at once, as in this way they are much more quickly disposed of, and with far less smoke than if large masses are put on. The ashes that are left will, of course, be a good dressing for the ground. The grass may be dug in and will not take long to decay. If the soil is of a heavy nature, it will be greatly benefited if treated in this way.

FUNGI IN AN ORCHARD (D. P. S.).—The fungi when they reached us were rather too far gone for us to be absolutely certain of their identity, but from what we could see we think there can be no doubt that they are a variety of the common Mushroom.

THRIP IN A FERNERY (A. M. C.-S.).—XL Fumigator or MacDougall's Fumigating Shreds may be used with safety for many Ferns, but some suffer when the material is used at full strength. You might try the dip (for the fronds only) recommended in our columns a little while ago for red spider—a handful of soft soap, into which flowers of sulphur have been kneaded, dissolved in one and a half gallons of warm water.

TITS DESTROYING APPLES.—Can you or any of your correspondents kindly inform me if there is any practical means of preventing blue tits from destroying Apples? They do not seem to care for any but the best; our Cox's and Mothers are badly attacked by them annually. Last season I lost over 600 Cox's Orange Pippins from fifty cordons by these pests, and this year, out of a very small crop, practically every Apple will be pecked. Kindly "old ladies" of both sexes tell me tits will not touch Apples if Sunflowers are grown near; we have dozens close to the cordons and I have never yet seen a blue tit touch the seeds, though great, marsh and coal tits devour them greedily. Other "protectors" advise water; we have plenty close by, but it is of no use. We have tried "scares" of various kinds; the birds take no notice of them whatever. The gun seems to be the only successful method, though it is difficult to catch them on the hardwood trees and, of course, they cannot be shot on the cordons. Bags will protect the fruit, but with a large crop it is practically impossible to cover every Apple, not to mention time and expense.—H. NOBLE. [We are unable to suggest a practical means of keeping away the tits, unless netting can be accomplished.—ED.]

MAKING POT-POURRI.—Can any of your readers say how long it takes for Rose leaves, mixed with salt for pot-pourri, to dry? Mine were gathered and salted in July and are still quite moist. Spices have not yet been added.—M. [There are two distinct methods of making pot-pourri—the moist and the dry. If the intention is to make dry pot-pourri, no salt should be used; the purpose of the salt is partly to act as a preservative and partly for the express purpose of retaining a certain degree of moisture. To answer the question exactly, if salted Rose leaves are left in an uncovered bowl in a warm room they will dry—salt and all—just as salt itself will keep dry in the same conditions; but this does not appear to be the meaning of the question. As the moist pot-pourri is considered the best, it would be the better plan to accept the salted Rose leaves as a preparation for making the moist kind. Shredded leaves of Sweet Geranium and Sweet Verbena, also Bay leaves can still be collected if the weather remains open, and would be a good addition to the pot-pourri, both for sweetness and as a useful increase of bulk, but all should be prepared by packing them firmly into jars of china or glazed earthenware with the salt mixture, of half bay salt roughly crushed and half common salt, sprinkled between. If this further preparation of material is made, it would all be in good condition for the final mixing and the adding of spices about the middle of November.—ED.]

NAMES OF PLANTS.—Colonel W. H. C.—Funkia subcordata (Corfu Lily).—Boris.—Asparagus Sprengeri.

NAMES OF FRUIT.—H. J. S.—Apple James Grieve (other fruit was rotten).—J. H. M.—1, Lane's Prince Albert (poor fruit); 2, King of the Pippins; 3, Blenheim Orange; 4, probably a poor fruit of King of the Pippins; 5, Ecklinville Seedling.

SOCIETIES

ROYAL HORTICULTURAL SOCIETY'S FRUIT SHOW.

THE society's twentieth exhibition of British-grown fruit was held in the Royal Horticultural Hall, Vincent Square, on the 3rd and 4th inst., and from every point of view—high excellence, extent and keen competition—must be accounted a great success. The more important classes, open to nurserymen only, arranged on tabling 30 feet by 6 feet, constituted an imposing feature of the show, and rarely has fruit of higher quality been staged. Grapes by general consent have never before been on so vast a scale, upwards of 220 bunches being staged in the competitive classes. Other fruits were also good and, well displayed, made the exhibition one of the finest of its kind. Following are some particulars of the show.

OPEN TO GARDENERS AND AMATEURS.

For a collection of nine dishes of ripe dessert fruit, three exhibitors staged, the first prize being awarded to Lord Somers, Eastnor Castle, Ledbury (gardener, Mr. G. Mullins). Grapes Muscat of Alexandria and Black Hamburg, Peaches Sea Eagle and Barrington, Pears Doyenné du Comice and Marguerite Marillat, Apple Rival and Humboldt Nectarine constituted his set. Everything was high class. Second, the Duke of Newcastle, whose Pears Marguerite Marillat and Triomphe de Vienne were

admirable. Peaches Princess of Wales and Crimson Galand were also excellent.

Five collections were staged for six dishes of ripe dessert fruit. Lord Hillingdon, Sevenoaks (gardener, Mr. J. Shelton), taking the lead with admirable produce. Grapes Madresfield Court and Muscat of Alexandria, Peach Lord Palmerston and Apple Charles Ross were the best dishes. Mr. J. Liddell, Sheffield Manor, Basingstoke (gardener, Mr. R. Leadmonth), was second, having excellent Figs, Peaches and well-finished Grapes.

For six distinct varieties of Grapes, two bunches of each, six collections were staged, the Duke of Newcastle, Clumber, Worksop (gardener, Mr. S. Barker), staging admirably and taking first prize. His six comprised Black Hamburg, Buckland's Sweetwater, Chasselas Napoleon, Muscat of Alexandria, Gros Colmar and Madresfield Court. Uniform size and good finish characterised the whole. Second, Mr. W. Mackay, Ascog, Bute, N.B. (gardener, Mr. D. Halliday), who showed Appley Towers, Mrs. Pince and Madresfield Court very finely; third, Mr. G. Miller, Radlett (gardener, Mr. J. Kidd), who had Appley Towers in perfection. We have never before seen this class so well contested or such fine produce staged.

Only one exhibitor staged four varieties, two bunches of each, Lord Hillingdon, Wildernes, Sevenoaks (gardener, Mr. J. Shelton), being awarded first prize for moderately good produce.

Two bunches of Black Hamburg Grapes brought eight competitors, Lord Hillingdon, Sevenoaks, staging perfect bunches of this popular sort. The finish was admirable. Lord Savile, K.C.V.O., Rufford Abbey, Notts (gardener, Mr. J. Doe) was second, and also staged well.

Lord Hillingdon was again first for two bunches of Mrs. Pince, and here again the size of the bunches and perfect finish characterised the exhibit, which was of grand quality. W. Mackay, Esq., was second, the bunches very fine but less well finished.

Two bunches of Black Alicante: First, Mrs. W. Raphael, Castle Hill, Englefield Green, whose bunches were excellent. Second, the Executors of the late J. Brunton, Esq., Stourport (gardener, Mr. W. H. Wilson), who had finely finished bunches. Seven staged.

For Madresfield Court Grapes, Lord Hillingdon, Sevenoaks, again scored with moderately large, even bunches, finely berried and well finished. Second, the Duke of Newcastle, Clumber, Worksop, who had admirably finished, well-shouldered bunches. Seven again staged.

For two bunches of Prince of Wales Grapes, G. Mayer, Esq., Woldingham, Surrey (gardener, Mr. T. Newman), was first, Lord Savile being second.

For two bunches of any other black Grape, the Duke of Newcastle, Clumber, Worksop, was first with Muscat Hamburg.

For Muscat of Alexandria, similar conditions, nine staged, the Duke of Newcastle, Clumber, Worksop, was placed first with well-coloured though not uniform bunches; second, Lord Somers, Eastnor Castle, Ledbury (gardener, Mr. G. Mullins), with nicely formed, well-coloured bunches. We would like to call attention to the magnificent bunches staged by C. W. Mann, Esq., Bexley, Kent (gardener, Mr. J. Simon), which, if wanting in colour and finish at the moment, were of grand proportions and well berried. Finished, these would have merited the highest award.

For two bunches of any other white Grape, the Duke of Newcastle was first with Cannon Hall Muscat. Four staged.

For a collection of hardy fruits, thirty dishes, distinct, grown entirely in the open, Lord Somers, Eastnor Castle, Ledbury (gardener, Mr. G. Mullins), was first with a splendid assortment. Apples Peasgood's Nonsuch, Washington, Gascoyne's Scarlet, Rival, Rev. W. Wilks (a grand dish) and Charles Ross were admirable. Pears Triomphe de Vienne, Dr. Jules Guyot and Durondeau, with Peaches, Nectarines, Figs, Cherries and Plums, were also good. Second, Major Powell Cotton, Birchington, Thanet (gardener, Mr. J. Cornford), whose Figs, Plums Monarch and Coe's Golden Drop, Peaches, Apples and Pears were of general excellence. Everything was well shown. Only two collections were staged.

OPEN TO NURSERYMEN ONLY.

For fruit grown entirely in the open, shown in a space 30 feet by 6 feet, Messrs. H. Cannell and Sons, Eynsford, Kent (manager, Mr. James Lawson), were easily first, staging a superb collection comprising 250 dishes of Apples and Pears. Plums were also very fine. Notable dishes in the collection were Apples Peasgood's Nonsuch, Charles Ross, Annie Elizabeth, Emperor Alexander, Egremont Russet, Alfriston (very fine), Baumann's Reinette, Allington Pippin, Coronation, Worcester Pearmain, Mère du Ménage, James Grieve, Norfolk Beauty, Golden Spire, Stirling Castle, Bismarck, Winter Ribston, Cellini, Bramley's Seedling and Warner's King. Pears, too, were excellent: while Plums Coe's Golden Drop, Monarch, Belle de Septembre, Archduke and Wyedale were also well shown, Messrs. Seabrook and Sons, Chelmsford, were second, staging very finely a great variety of Apples with handsome dishes of Pears. Apples Warner's King, The Queen, Bismarck and Duchess of Oldenburg were notable examples.

For a collection of fruit on a run of tabling 20 feet by 6 feet, Messrs. J. Cheal and Sons, Crawley, were first with a particularly good and clean lot of fruits. Apples Egremont Russet, Prince Albert (of fine colour), Bismarck, Rev. W. Wilks, Charles Ross, Peasgood's Nonsuch, Royal Jubilee, Grenadier, Lord Derby, Gascoyne's Scarlet and Blenheim Orange were the more important dishes. Second, Messrs. Laxton Brothers, Bedford, who had good Worcester Pearmain, Cox's Orange Pippin, Peasgood's Nonsuch, Lord Derby and Ben's Red Apples,

with Plums Monarch, Reine Claude de Bavay and other crossbreds not yet named. Excellent Pears were staged. There were four collections staged in this class, the whole making a splendid display.

Only one exhibitor, Mr. Edward Parsons, Worcester, staged in Class 16, 12 feet by 6 feet being allowed. Beauty of Hants, Golden Noble, Warner's King, Mère du Ménage and Madresfield Court were good dishes of Apples.

Messrs. Thomas Rivers and Son, Sawbridge, were the only exhibitors of orchard-house fruit and fruit trees in pots on a space 24 feet by 6 feet. Of Apples, Peasgood's Nonsuch and Cox's Orange Pippin were very fine; of Plums, President and Rivers' Late Orange were very good; while Peaches Salway, Sea Eagle and Thomas Rivers were also well represented by pot plants. Of dishes, Apples James Grieve (early), Gascoyne's Scarlet, Ribston Pippin and Washington were all good. An excellent exhibit throughout.

OPEN TO MARKET GROWERS ONLY.

Twenty baskets of cooking and dessert Apples, distinct: First, Messrs. Gaskain and Whiting, Dargate, Faversham, Kent, who showed fine baskets of Apples Charles Ross, Rival, Mère du Ménage, Emperor Alexander, Stone's, Peasgood's Nonsuch, Reinette de Grand Page, Bramley's Seedling, Warner's King and others; second, Lieutenant-Colonel H. Lumley Webb, Sittingbourne, who had an even, well-balanced lot of fruit.

For twelve baskets of cooking and dessert Apples the Horticultural College, Swanley, was well to the front, staging superb baskets of Peasgood's Nonsuch, Warner's King, Bismarck, Golden Noble, Lane's Prince Albert, Newton Wonder, Charles Ross, Allington Pippin, James Grieve, King of Tompkins' County, Cox's Orange Pippin and Worcester Pearmain; an admirable set in every way and well displayed. Second, Lieutenant-Colonel H. Lumley Webb, Sittingbourne, whose fruit was only moderately good.

For six baskets of Pears, only one exhibitor staged, the first prize going to Lieutenant-Colonel H. Lumley Webb, who had Pitmaston Duchess, Marguerite Marillat, Beurré Bosc, Conference, Doyenné du Comice and Beurré Superfin. These were very good.

OPEN TO GARDENERS AND AMATEURS ONLY.

Apples, twenty-four dishes, distinct—sixteen cooking, eight dessert. In this class Lord Somers, Eastnor Castle, Ledbury, was first with a clean lot of fruits. Blenheim Orange, King of the Pippins, Cox's Pomona, Newton Wonder, Lane's Prince Albert, Charles Ross, Rev. W. Wilks and Gascoyne's Scarlet were among the best dishes. Second, J. Liddell, Esq., Sheffield Manor, Basingstoke, whose Rival, Rev. W. Wilks and Peasgood's Nonsuch were admirable. Four collections were staged.

Apples, eighteen dishes, distinct—twelve cooking, six dessert: First, E. E. Pearson, Esq., Brickendonbury, Herts (gardener, Mr. W. Stephenson); Rival, Emperor Alexander, Baron Wolseley and Bramley's Seedling were capital dishes. Second, Major Powell Cotton, Birchington, Thanet, whose best were Gascoyne's Scarlet, Peasgood's Nonsuch and Warner's King.

For twelve dishes, Mr. G. Miller, Radlett, was the only exhibitor and was awarded first prize for good fruit.

For six dishes of dessert Apples, Lord Somers, Eastnor Castle, Ledbury, showed admirably, his set comprising Ribston Pippin, James Grieve, Houblon, Rival, King of the Pippins and Wealthy, a perfect set, well coloured and of uniform size. Second, Mr. J. Liddell, Basingstoke.

For eighteen dishes of dessert Pears, distinct, C. A. Cain, Esq., J.P., The Node, Welwyn, Herts (gardener, Mr. T. Pateman), was first, Conference, Marie Louise d'Uccle, Marguerite Marillat, St. Luke and Doyenné Boussoch being very fine dishes. Second, Mr. J. Liddell, Basingstoke.

For twelve dishes of Pears, Major Powell Cotton, was first, Triomphe de Vienne, Durondeau, Conference and Pitmaston Duchess being very fine. Lord Hillingdon was second, Beurré Superfin and Marie Louise being excellent dishes.

For nine dishes of Pears, E. E. Pearson, Esq., was first, Souvenir du Congrès, Conference, Beurré Hardy and Durondeau being the finer examples.

For three dishes of Plums, E. H. Berners, Esq., Woolverstone Park, Ipswich (gardener, Mr. Messenger), was first, showing splendid dishes of Coe's Golden Drop, Pond's Seedling and President, all grand fruits.

For Damsons or Bullaces, three dishes, Mr. F. G. Gerrish, Pendley Manor, Tring, was first, having Prune, The Merryweather and the common Damson.

Morrello Cherries, three dishes, were also well shown by this exhibitor, who took first prize with fine produce.

COUNTY CLASSES.

These were admirably contested throughout, our only regret being that we are unable, through lack of space, to refer to these and other classes in detail.

The War Office notifies that from now onward all papers posted to any neutral European country will be stopped, except those sent by publishers and newsagents who have obtained special permission from the War Office. Such permission has been granted to THE GARDEN, and subscribers who send to friends in Denmark, Holland, Norway, Sweden, Switzerland, Spain, Portugal, Greece, and Roumania should order copies to be despatched by the Publisher from 20, Tavistock Street, Covent Garden, W.C.

* * * The Yearly Subscription to THE GARDEN is: Inland, 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

No. 2343.—VOL. LXXX.

OCTOBER 14, 1916.

NOTES OF THE WEEK

WE are now at the commencement of the Rose-planting season, and our next issue will be a special number mainly devoted to Roses. This will contain interesting articles on new Roses, China Roses, Roses of bygone days, planting Roses, late-flowering Roses—all written by recognised authorities on our national flower. Among the contributors are Miss G. Jekyll, on Boursault Roses; E. H. Woodall, on the Macartney Rose; E. Waters, on Roses in Yorkshire; George Bunyard, V.M.H., Herbert Molyneux, A. Osborn and W. Easlea. The illustrations will be equal to the most beautiful that have ever appeared in our pages, while a delightful coloured plate of *Rosa Moyesii* in flower and fruit will be presented with this issue. The price for this special number will be 2d., and as there is certain to be a great demand for it, we ask readers to place their orders at the bookstalls in advance.

Pæonia peregrina Gifford's Variety.—In our issue of June 20 we acknowledged in appreciative terms the cut blooms of a delightful Pæony sent by Mr. F. Gifford of Hornchurch under the name of *P. officinalis lobata*. It appears, however, that this is not *P. officinalis lobata*, and it has been identified at Kew as a rare form of *P. peregrina*. By virtue of the rich quality of its orange scarlet, Tulip-shaped flowers and clusters of bright golden anthers it is one of the most beautiful and refined of all Pæonies.

The Purple-Leaved Filbert.—This is an ornamental tree of a high order, its rich purple foliage being quite equal in beauty to that of any of the Purple Beeches. It has the additional merit of bearing as good crops of Nuts as most of the plain-leaved Filberts. It is, of course, well known that the Filberts refuse to bear on many soils; but the purple-leaved variety, although it may not bear, will be an acquisition and a success in any shrubbery or pleasure ground.

Six Good Single Dahlias.—Prior to the advent of the Cactus Dahlia, the single Dahlia enjoyed a considerable period of popularity. The Cactus, the Pæony and the Collarette, each in turn, all but ousted the single from the field. The single is again to the front, however, improved both as regards form and colour; and for the benefit of those desirous of giving them a trial, half a dozen excellent varieties may be mentioned which have done well with us in this by no means favourable season: White Star, pure white with yellow centre; Fugi San, orange yellow with crimson ring in centre; Lagos, very dark crimson, in the way of Little Othello, but superior to it, rather dwarf; Mrs. W. Hood, pure yellow, long

stemmed; Mrs. W. W. Merry, bright sienna orange, paler towards the tips, a unique shade; and Serita, intense crimson, shaded purple.

Gladiolus America.—The illustration on this page is of one of the most beautiful varieties of the popular bedding Gladiolus. At the same time it is easy to cultivate. A few bulbs planted last March in a sunny situation protected from cutting winds have borne and continue to bear very handsome spikes of bloom. The flowers are of a lovely soft rose, and, as many flowers are open at the same time, it is excellent for cutting.

Salvia Glory of Zurich in Autumn.—This brilliant scarlet *Salvia* remains in full bloom long after most other bedding plants are over,

and it does not show the same tendency to drop its flowers which is common to other *Salvias*. It is at the present time flowering with great freedom and with all the freshness of its summer beauty on the terrace in Lady Tate's charming garden at Park Hill, Streatham. There is no bedding plant to compete with it for brilliance at this time of the year.

Bees and the Odour of Musk.—It is quite probable that the odour of Musk has had a very detrimental effect upon the plant in this country, and this may account for the mysterious disappearance of the scent within the last few years. Huber, who ascertained the effects of different odours on bees, records the following experiment: "We sprinkled some powdered Musk on a drop of honey, into which some bees thrust their suckers as if by stealth, for they kept as far back from it as possible; but although they often appeared to suck it, we did not perceive it to become less in a quarter of an hour, long before which it would have disappeared had it not been mixed with Musk." From this it may be assumed that the modern scentless Musk would receive the attention of bees in preference to the old-time scented Musk.

Trials of Summer-Fruiting and Autumn-Fruiting Raspberries.—Trials of both summer-fruiting and autumn-fruiting Raspberries will be held at Wisley. Three plants of each variety should reach the Director, Royal Horticultural Society's Gardens, Wisley, Ripley, Surrey (station, Horsley, London and South Western Railway), by November 15, 1916, accompanied by the necessary forms of entry (one for each variety), which may be had on application to the Director.

National Sweet Pea Society.—The annual general meeting of the National Sweet Pea Society will be held at the Royal Horticultural Society's Hall, Vincent Square, Westminster, London, S.W., on Tuesday, October 24, commencing at 4.30 p.m., when proposed alteration of rules will be submitted for approval.

Southampton Autumn Show Abandoned.—The Council of the Southampton Royal Horticultural Society regret that it is impracticable to hold an autumn show this year. Although some exhibitors kindly offered to show without prizes, many others are unable to do so, owing to themselves or their assistants being called up; this, combined with the impossibility of obtaining a suitable hall in a convenient position, has compelled the Council reluctantly to come to the above decision.

*** Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.



THE ROSE-COLOURED GLADIOLUS AMERICA.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Rudbeckia pinnata.—Mr. Bowles' reference to *Rudbeckia maxima*, issue October 7, page 492, induces me to say a word in favour of *R. pinnata* (Lepachys), the most graceful and refined of the tall Rudbeckias. *R. maxima* and *R. pinnata* each began flowering here on August 20; the former is now over, but the latter is still (October 6), in full bloom, waving its lemon yellow flowers in the autumn breeze, in colour a pretty contrast with *Aster Beauty of Colwall*. Both species are quite devoid of the rampant coarseness to which others of the genus incline. — HERBERT MAXWELL *Monreith*.

Potato Epicure.—The notes by "E. M." and "C. T." in recent issues of THE GARDEN on this Potato raises a point on which considerable differences of opinion already existed. Like "C. T.," I have found it a very heavy cropper and satisfactory in every detail except what must be considered the most important, namely, the cooking. I have tried it here in garden and field, but in both cases the cook is most emphatic in her assertion that "it won't cook." Gardeners do not always agree with cooks or chefs in their expressed opinions on the merits of different vegetables and their varieties, but personal experience of Potato Epicure compels me to admit that in this case the cook is absolutely correct in her condemnation as far as this sort is concerned. I quite agree with "E. M." that "a huge crop of saleable tubers" is easily procured from this variety, but I should have liked his opinion on its cooking qualities. A secondarily variety that I have found a good cropper and fine for table is Sutton's Centenary.—F. W. MILES, *Ware Park Gardens*.

Auricula Solomon Page's Champion.—The articles and correspondence in THE GARDEN about this very ancient Auricula has made me search furiously among my old books to see if I could hunt up the date when it "went out," for although, as my good friend Mr. Harman Payne says, it is not often possible to fix the name of the raiser and the date of introduction, or, as our ancestral florists would have expressed it, the "going out" of an old variety, still there are a certain number which can be traced. What happened when Dr. Syntax went out on the first Saturday after the Fifth of November from the Pitt and Nelson Inn at Ashton-under-Lyne? Was Simon Hooton, the raiser, there as well as William Farmer, the grower? Were not such days "red-letter days" in these ancient florists' calendar? I expect they often had a high old time and enjoyed themselves hugely. In the note in THE GARDEN for October 7 Mr. Payne refers to two pictures of Page's Champion. There is a much older one in "Sweet's Florists' Guide," dated 1829, which is reproduced on this page. Page's Champion is an example of creaking doors hanging longest, for it is recorded about it that it required very particular care to keep it in good health; and yet it lived from about 1815 or a little earlier until 1880, and possibly even until now. I doubt if it was ever quite at the top of the tree, owing to a disposition which it had (or has) to crack in the paste towards the tube. Three records go to prove this: (1) The voting in the late Rev. F. D. Horner's enquiry as to which were the best varieties of Auricula about 1877 or 1878;

(2) in the "Floral Register for Lancashire, Yorkshire and Cheshire" for 1841 it is placed ninth in the list of successful green edges; and (3) in G. W. Johnson's volume on the Auricula it is omitted in his list of the best varieties between 1802 and 1820, whereas Ryder's Waterloo and Booth's Freedom (first and second in 1841 in the before-mentioned register) are both there. I have a catalogue of one Charles Hall, V.D.M.E.D., dated 1802, in which 370 odd varieties are listed, but there is no one of the name of Page included, the inference being that he was not known then. By the way, what do the letters after Hall's name mean? They beat me.—JOSEPH JACOB.

Onions for Keeping.—Gardeners should indeed be grateful to Mr. Clarence Ponting for his able



AURICULA SOLOMON PAGE'S CHAMPION.
From "Sweet's Florists' Guide," 1829.

article on the above in THE GARDEN, issue September 30, page 481. I have read it with very great interest, and with most of it I thoroughly agree. Mr. Ponting, however, surely does not mean the figures he gives to be the average cost of production. Good farmyard manure costs 4s. 6d. a load, on an average, and not 3s. 6d. a half load as Mr. Ponting says; and the sweep is usually quite ready to leave the soot with us for 6d. per bag, and not 1s. a bag as given in the article. However, these are very small points. With the rest of the article I am in thorough agreement. In this district we give our Onions a rich site, digging in plenty of manure and soot. The seeds are not sown in the autumn in our garden, but in January in heat; and planted out later. For my own part I thoroughly disagree with the

feeding of Onions with artificial manures throughout their growing season; one application, or at the most two, are quite enough, and more are, in my estimation, harmful. Our Onions keep well enough, but we are unable to get giants by our mode of culture. Those sown out of doors and not thinned out are in this district almost always very small and very poor, a fact which proves the method is a bad one here.—E. T. ELLIS, *Weetwood, Ecclesall, Sheffield*.

Finocchio, or Florence Fennel.—I see a note appears in THE GARDEN again on the Florentine Fennel (Finocchio). Some years ago full cultural directions were given in THE GARDEN by the late Mr. G. Wythes. In a light, hot soil I have tried for years to grow this vegetable, and never succeeded. It will not swell, but runs to seed whatever one does, and I would warn others to save themselves the trouble of trying it in such soils. That it can be grown successfully in a strong soil, Mr. Wythes' note testifies. Well-grown roots, braised, are a most delicious vegetable. It is a pity this Fennel is not grown in this country or else imported from Italy, as it should have a ready sale in normal times.—C. G. B. [For the guidance of others we now reprint the note by the late Mr. G. Wythes: "This plant is largely grown in Italy, and it is strange that in France gardeners do not grow this in quantity. There is no difficulty whatever in its culture, as if seeds are sown in April or early May in good land in rows 18 inches to 2 feet apart, and the seedlings thinned from 9 inches to 12 inches in the row, excellent produce will be secured for the late summer and autumn supplies. Those who like the taste of the ordinary Fennel, the green tops of which are used for fish sauces, will like the Florence variety, which is not so strongly flavoured as the first-named and has a much sweeter taste. The plant, when nearly full grown, swells at the base, and the lower part is not unlike a divided Shallot, but larger. This is the edible portion, and should be earthed up to blanch it. Treated thus it makes an excellent vegetable. I have lifted large roots in the autumn and kept them for a long time when stored in sand in a cool shed."—ED.]

Butterflies on Buddleias.—I have seen continually this autumn, also during several autumns past, the Red Admiral, the Peacock, and many smaller butterflies the names of which I am uncertain, though I know the butterflies very well by sight, together with an innumerable company of bees and flies, on the Michaelmas Daisy Lil Fardell. This year there is a Yellow Brimstone too, and he likes the blue Climax Daisy, and looks lovely on it. We had the Orange Honey-ball Tree (*Buddleia globosa*) in our Surbiton garden, and I remember how bees, insects and early butterflies enjoyed it, but "Lil Fardell" seems to please them all even more, perhaps because there is a smaller choice of flowers at this season. It is my frequent delight on sunny September days to sit close to a large clump of this Michaelmas Daisy and observe them. They crowd on the deep rose flowers in such numbers that if depicted by an artist it would probably be ridiculed as an absurd exaggeration.—ANNE AMATEUR.

—I was extremely interested in reading what Dr. Botting Hemsley has to say regarding the curious fascination *Buddleia variabilis* appears to possess for butterflies, and which our experience here bears out to the letter. My garden has been much frequented by Red Admiral and Peacock butterflies, but nowhere else have they been found

except fluttering round the Buddleias or settled in a kind of half-dazed delight upon their long blue panicles. May I add one word with respect to the hardiness of this beautiful flowering shrub? My garden is in an exposed position, but in spite of cutting winds and keen winters the Buddleias never fail to gladden us in September with their long, fragrant tresses. We give them no special treatment except to cut them back somewhat severely every year.—ARTHUR C. NEUSUM, *Bracebridge Heath, Lincoln.*

Underground Storage of Apples.—I was interested in the notes by "C. T.," issue September 30, page 474, on the above subject, not that I have tried the method, but because of an experience I once noticed which seems to bear out the correctness of the statements. I had an Apple tree, name unknown, of the Codlin type, which produced an excellent crop of Apples every other year, but owing to its non-keeping properties was not greatly valued. The fruits from this tree were not picked with the care those which were known to be "good keepers" received, with the result that a number of the smaller ones which fell to the earth were buried when turning over the soil for the autumn "roughing up." The following spring, when the ground was again turned over, these Apples were brought to the surface in splendid condition, having had no other protection than the soil itself. This seems to indicate that if the Apples were placed in a heap and simply covered with a good depth of soil to keep out the frost, they would keep until wanted in the spring. Owing to the absence of covering material, it would be impossible for the Apples to taste of it, as would be the probable result if straw or even wooden boxes were used. Apples are almost like milk or eggs in their ability to absorb the flavour of packing materials.—CLARENCE PONTING.

—In the autumn of 1911 some Apples were put in a stone jam jar which was down in a large airy cellar. One of the Apples by mistake was overlooked till May, 1913, and then it was quite sound, but when taken out it quickly decayed. The name was "Seek no Farther," a good old variety well known in this neighbourhood.—E. ROBINSON, *Cookham Rise, Berks.*

Saxifraga mandschurica and Arum italicum.—I have been pleased with *Saxifraga mandschurica*, which I purchased last year. Its round, leathery leaves are very distinct and have an air of good breeding about them, and the close-set heads of small pink flowers are produced in such numbers as to make up for their diminutive size. They are like miniature copies of the spring-flowering *S. peltata*, the tallest of all Saxifrages. The spikes of berries of *Arum italicum* are wonderfully effective under certain shrubs and round the stems of some small trees, where their leaves make pleasant carpets of greenery from November to July. Now these places, which would otherwise be bare and uninteresting, are as brilliant as any in the garden, for the spikes stand much higher than those of our common Lords and Ladies, and the individual berries are larger, but are similar in colour and very beautiful when one has the contrast of the shining pea green, unripe ones alongside the shades of orange and scarlet of those more mature. The only trouble about them is that when they fall off they get scattered and sow themselves far and wide.—E. A. B.

An Aid to Pruning.—With a few such reservations as gold mines and fancied racehorses, when one finds—or even thinks one has found—a good

thing I believe in telling friends, and the easiest way to communicate with a good many of mine is through the friendly medium of THE GARDEN. At the present time I am engaged in pruning about twenty-five acres of orchard (spring is already not far off, so I regard it as a blessing that most of the trees are small). What knowledge of pruning I ever had has got decidedly rusty; also, it is my idea that there are trees here that would, let us say, make Mr. George Bunyard himself look a trifle thoughtful, or, as an old phrase has it, would "puzzle a Philadelphia lawyer." Such things as Apricots and Japanese Plums growing in the open I never had pruned, but they all have to be gone over somehow. Fortunately, one of the strongest departments in this remote and humble establishment is the library, and I have found the fullest and best treatise on pruning fruit trees that I am acquainted with, in English. Although probably imperfectly conversant with the literature of the subject, I have some knowledge of it. Mr. Udale's book is a good one, but much too modest in dimensions, and I certainly prefer what I am going to recommend to Professor Bailey's work on the subject. The full title is "Fruit Tree Pruning: A Practical

Textbook for Fruit Growers Working Under the Climatic and Economic Conditions Prevailing in Temperate Australia," by George Quinn, Horticultural Instructor, South Australia; 230 pages, profusely illustrated, chiefly from photographs. New edition 1910, price 2s. I recommend those interested to ask the Agent-General for South Australia in London how copies can be best obtained; quite possibly he has some. I

doubt whether the book, being written to suit Australian conditions, lessens its value to English growers. At least it applies to Tasmania, and I fail to see why methods here should vary from the English, though, as a matter of fact, they do. A Tasmanian Apple tree is usually neither standard, half-standard, nor dwarf; it consists of from twelve to fifteen main branches coming cup-shaped out of a low trunk, and running up, say, 12 feet high, being easily pulled down for picking and pruning. Please note that the trees have no centres; Tasmanians are amazed to learn that they commonly have in England. Is not the local practice best? How many gardening books are there? I do not know, but there are none too many giving really plain, practical and reliable instructions. I say this not forgetting that we have to thank *Country Life* and other publishers for some good ones. I strongly advise fruit-growers to study the teaching of Mr. Quinn. Pruning is none the less interesting because practitioners rarely thoroughly commend one another's handiwork. On one point at least they do seem in accord in Tasmania: I have yet to hear a word of praise for the methods of the Government fruit expert!—ARTHUR GARNETT, *Cambridge, Tasmania.*

TENDER SHRUBS ON NORTH WALLS

BY SIR HERBERT MAXWELL.

INASMUCH as THE GARDEN has many readers beyond the limits of Midland and Southern England, it may be well to note that in Northern and Western districts there is not the same need for precaution against heat and drought as there is in other parts of the realm. Summer sunshine is tempered in the West by the humidity of the atmosphere, and, as a rule, the soil is more moist and cool than that of inland counties. Hence, while "L. H.'s" notes (page 474, issue September 30) on the value, and in some cases the need, of a northern exposure for certain shrubs will prove most useful to cultivators in Midland and Southern England, they are not equally applicable to gardens subject to Western conditions. To take a few of the plants named by "L. H." as benefiting from a north aspect, *Mutisia decurrens* is far more vigorous and flowers more freely here at Monreith against



"WAKE ROBIN" IN FULL SUNSHINE AT MONREITH.

a brick wall facing south than another plant does facing north. *Berberidopsis* is now in perfect beauty on another brick wall facing south. *Tricuspidaria lanceolata*, *Lardizabala bitermata*, *Solanum crispum*, *Escallonia macrantha*, *Tropæolum speciosum* and *Azara microphylla* appear absolutely indifferent to aspect, the last named, indeed, promising to attain the dimensions of a forest tree in the open.

I must not be understood as throwing the slightest doubt upon "L. H.'s" advice founded upon his experience in an Oxfordshire garden; I only wish to remind readers that cultural directions are not uniformly applicable to all parts of the kingdom. It took me some years before I learnt to accept under reserve such advice in plant catalogues from Southern nurseries as "grow in a moist, shady place," and to find that atmosphere is of more importance than aspect. For instance, *Trillium grandiflorum* is essentially a woodland dweller, but the sun of North America is far more powerful than that of Western Scotland. The enclosed photograph shows it growing at Monreith in full sunshine on a well-drained lawn. It has flowered there and ripened its seed with the utmost profusion and regularity for fifteen consecutive seasons.

MICHAELMAS DAISIES FOR BORDER AND WOODLAND

FOR many years, it may be for centuries, Michaelmas Daisies have been closely associated with cottage gardens. In the days when the Michaelmas Daisy was a despised flower in well-ordered gardens, it was with pride and satisfaction that the cottager and his wife would proceed to cut armfuls of these flowers to make up "country bunches," together with Dahlias, Japanese Anemones and Coreopsis. True, the clumps of Michaelmas Daisies were more often than not tied in the centre like a wheatsheaf, instead of being staked outwards with twiggy hazel sticks, so that the plants had room to develop and flower freely almost to the ground; but for all this,

the beds every second year, or as often as the plants show signs of deterioration. The rather low-growing Aster Amellus bessarabicus, making neat bushes smothered with large, clear blue flowers, is one of the best for massing under the partial shade of trees, while the old favourite Robert Parker, growing to a height of 4 feet, with flowers of a pretty shade of lavender blue, looks very charming when grown in this way.

Of varieties there is no end. Many of them are alike, and there is really no reason why more than ten or a dozen varieties should be grown in any one garden.

The variety of Aster acris known as linifolium is one of the best of all border flowers. It grows

The smooth-leaved Novi-Belgii group give a wider selection of varieties than any other. Climax is the finest light blue Aster in cultivation, while Feltham Blue (true blue) and St. Egwin (soft pink) are worthy of special mention. Beauty of Colwall is the most reliable of the double-flowered varieties and when grown in a mass it creates an effective cloud of lavender blue.

Happily, the cultivation of Michaelmas Daisies presents no real difficulties. It should be remembered that the plants have a vigorous root action and appreciate good soil well dug and manured. The plants are lovers of space, and they should be staked outwards so that the outside branches have room to develop and flower freely. Whether grown in border or woodland, Michaelmas Daisies should always be planted in bold masses. It is better to have large groups of one variety than to strive after an effect with small plants of many colours. H. C.



ASTER ACRIS LINIFOLIUM IN THE HARDY FLOWER BORDER.

the present-day popularity of the Michaelmas Daisy is largely due to those cottagers who considered it worth while to devote a little time with the spade and to add manure to the soil before planting.

Our hardy plantmen were, however, slow to see the future possibilities in these flowers; but when once they started to raise new seedlings and to grow them well, there was a transformation in quality, colour and profusion of flowers.

No garden to-day, however large it may be, is complete without the presence of the Michaelmas Daisy in some of its many forms. Miss Jekyll, writing in praise of these hardy autumn flowers, recommends that a separate border should be given them in some place rather away from other gardening. The idea is a good one, and in a few gardens it is carried out with marked success. These flowers are doubtless more effective in large masses on the outskirts of the woodland than elsewhere. To grow them in this way large informal beds should be prepared, replanting

to a height of 2 feet only, with compact heads of lilac blue. The Amellus type have large flowers and dwarf habit. Three of the best deep blue varieties are Darkness, Ultramarine and Beauté Parfait, while the new violet-coloured variety King George, with a bright golden yellow disc, is probably the largest-flowered of all the Michaelmas Daisies. The flowers are over 3 inches across and borne in large trusses.

The cordifolius section are tall growers, bearing myriads of small flowers on long, slender branches. Ideal, pale lavender, is one of the best.

Aster ericoides has Heath-like growth and a profusion of small flowers. The variety Hon. Edith Gibbs, with drooping branches and pale blue flowers; Enchantress, changing from white to pink; and Esther, with dainty rose flowers, are varieties of graceful habit. In the large-flowered Novæ-Angliæ type, Lil Fardell (rosy pink) and Mrs. S. T. Wright (rosy purple) are deservedly popular, and flower till November.

THE INTRODUCTION OF THE DAHLIA

OUR old contributor Mr. Harman Payne, who for many years has been greatly interested in the history and literature of florists' flowers, has recently made one of the most extraordinary discoveries in the annals of floricultural history. The subject is too long to be related here in detail, but it may be briefly referred to for the information of our Dahlia-loving readers.

The main facts are as follows: For upwards of a century every writer on the history of the Dahlia has asserted that the flower was first introduced into England in the year 1789 by the Marchioness of Bute. There has been no attempt by anyone to discover what the variety or varieties were. The bare facts only were mentioned, and as they were subsequently lost, the uninterrupted history of the flower really begins with the second introduction, which was

due to Lady Holland, who in 1804 sent home seeds from the Botanic Garden at Madrid, where the Abbé Cavanilles grew the first Dahlias. He received them from Cervantes, the Director of the Botanic Garden at Mexico, and after flowering the new-comers in 1789 or 1790, Cavanilles named the flower Dahlia, as he says in the first volume of his "Icones Plantarum," published in 1791, "In honorem D. Andreae Dahl Sueci botanici." The first was the variety pinnata, and three years later the varieties rosea and coccinea were figured and described by this Spanish botanist.

The first query that arose in the mind of Mr. Payne was, how could this newly arrived plant from Mexico, till then unknown, unflowered, unnamed and undescribed, be introduced into England the same year as it reached Madrid? The thing was highly improbable, yet every writer on the Dahlia stated such to be the case. One of the earliest writers to deal with the subject was Joseph Sabine, Secretary of the London Horticultural Society, who in 1818 wrote a

very interesting account of the history of the Dahlia and its literature, dividing the then known varieties into two species, viz., *D. superflua* and *D. frustranea*. He says in one part of this paper, when referring to Lady Holland's introduction, "Though this importation of the seeds was the most successful, as to its produce (for from it nearly all the plants then in our gardens were obtained), yet the original introduction of the first species was (on the authority of the 'Hortus Kewensis') from Spain in 1789, by the Marchioness of Bute." It was just this guarded parenthetical reference to the "Hortus Kewensis" that caused Mr. Payne to probe the question further.

Upon turning up the "Hortus Kewensis," Vol. V., 1813, twenty-four years after the supposed introduction here, we read on page 88, under the heading "Dahlia. Cavanill., ic. I., p. 57.": "Nat. of Mexico. Introd. 1789, by the Marchioness of Bute." Between 1789 and 1813 we can find no allusion anywhere, direct or indirect, to the Marchioness of Bute, and the statement of the "Hortus Kewensis" in all its baldness is nowhere verified by contemporary corroborative evidence. This is consequently unsatisfactory to the investigator, and all the more so when, upon further enquiry, we discover that in 1789 there was no such person as the Marchioness of Bute. The title of marquis was not conferred upon the fourth Earl of Bute till 1796.

It is not possible in the limited space at our command to go step by step through the interesting researches that Mr. Payne has made, but we may add that, in the course of his enquiries, he has discovered at the Natural History Museum some dried specimens of the earliest Dahlias grown in England. Three of them bear the names *pinnata*, *rosea* and *coccinea*, given to them by Cavanilles, and on the backs of these mounted specimens are written the words: "C. G. Ortega (Lady Bute)." Thus it is established that Lady Bute's varieties were the three original ones received by Cavanilles. But what does "C. G. Ortega" mean? That is the name of the Director of the Madrid Botanic Garden from whom Lady, otherwise the Marchioness of Bute received the seeds or plants.

We must not linger over this, for the reasons stated. It is curious to note that some authorities state that the Marchioness of Bute introduced the Dahlia here while her husband was British Ambassador at the Court of Spain. Here, again, Mr. Payne submitted that statement to a critical test and ascertained that Viscount Mountstuart, who subsequently became Marquis of Bute in 1796, was British Ambassador at Madrid for a few months in 1783 and was not reappointed in that capacity till 1795. Therefore we get another apparent contradiction which throws doubt, if not discredits, upon the statement of the "Hortus Kewensis."

To sum up in a few words. Our old Dahlia writers add that Lady Bute sent seeds or plants of the Dahlia to Kew. An explanatory letter of the above facts was therefore addressed to the Director, who in reply says that among the records there is a list, dated 1798, of plants and seeds required from the Madrid Botanic Garden. In that list are *Dahlia pinnata*, *D. rosea* and *D. coccinea*, and it may be assumed they were duly received, and that therefore the date 1789 given in the "Hortus Kewensis" is an error, a simple one resulting from an undetected transposition of the figures. Hence it is evident that future historians of the Dahlia must attribute the first introduction of the Dahlia to the

Marchioness of Bute in the later year. The Director of Kew adds that this view is supported by Aiton's "Epitome of the Second Edition of the 'Hortus Kewensis'" (1814), page 267, where the date of introduction of *Dahlia superflua* is given as 1798, and as he names the Marchioness of Bute as the introducer, that title, as we have shown, would be correct at that time, is therefore, as we have already said, one of the most extraordinary ever yet made in the annals of floricultural history.

SENECIO JAPONICUS

This is a fine subject for the wild garden, attaining as it does a height of about 6 feet.



ASTER ROBERT PARKER NATURALISED IN THE WOODLAND.

but would not be so for 1789. How it is that for upwards of a hundred years no Dahlia historian has ever discovered these facts is a mystery difficult of explanation. They have all without exception unhesitatingly accepted a date which on the face of it must have been an impossible one. Mr. Harman Payne's discovery

Its foliage much resembles that of *S. Clivorum*. The panicles of rich golden flowers are very effective in autumn. It likes a rather moist position, but is not fastidious. It used to be known as *Lingularia japonica*, also as *Erythochaete palmatifida*, but I think it is most properly included among the Ragweeds. CALEDONIA.

STENANTHIUM ROBUSTUM

THOSE who have moist places which they want to occupy with a few good plants would do well to consider the value of *Stenanthium robustum*, offered sometimes as the Mountain Feather Fleece, a striking and beautiful plant of the Natural Order Liliaceæ. It looks extremely well by the side of a little rivulet, and I have specially in my mind's eye, as I write, a good group by the side of a streamlet in an Irish garden of some renown. It was very beautiful there. In height it is from 3 feet to 5 feet, and the stems are surmounted by panicles of small white flowers, insignificant in themselves, but in the mass quite attractive. The flowers vary in purity, and in some individual plants are tinged with green. The narrow leaves are in keeping with the general appearance of the inflorescence. Unlike its only congener, *S. gramineum*, it loves a moist soil in its native habitats, and should have this preference attended to in gardens. It is fairly hardy and blooms with us about June.

S. ARNOTT.

WINTER WORK IN THE ROCK GARDEN

ALTHOUGH with most plants winter is the time of rest and sleep, there is a good deal of work to be done in the rock garden so long as it is not buried in snow or hard as iron in the icy grip of frost. In the first place, before winter sets in in good earnest, some time during October or early November, according to the weather, all the downy-leaved plants ought to be covered over with glass. Any sign of silky hairs or fluff about the leaves is a danger signal. In their natural climate these hairs save the plant from drought by catching and retaining any moisture they can get from the air, while during the winter, when they might get overcharged with it, they are safely covered up, out of harm's way, under a thick blanket of snow. But in our English climate it generally means that they collect far too much in the winter, so that the pores get choked up and the whole plant gradually decays and dies.

Special glasses with wire frames and supports can be got from most seedsmen, and, of course, they are the neatest; but if one does not want the expense of buying them, some odd pieces of glass large enough to cover the plants, with sticks put into the ground for supports, and little stones on top to keep them from being blown or knocked off, will really do quite as well. Do not put the glasses right down on top of the plants, though. Remember that they want protection from rain only, and a free circulation of air is absolutely essential to their well-being, so leave a few inches of space between them and the glass.

All the *Androsaces* should be so protected, also the *Cushion Saxifrages* *apiculata*, *Burseriana*, &c.; while *Gentiana verna*, *Potentilla nitida*, *Omphalodes Lucilia*, *Silene acaulis*, *Antirrhinum Asarina*, *Arnebia*, *Asperula suberosa*, *Hypericum Coris*, *Lychnis Lagasce*, *Schizocodon soldanelloides*, *Houstonia*, *Omphalodes speciosa*, *Edelweiss*

and several others will be much benefited by it. The *Soldanellas*, too, can often be induced to flower if they are covered during the winter, when nothing else will make them show a bud.

After a spell of frost one often notices that the roots of a good many plants have loosened their hold in the ground and worked themselves up to the surface. They should be gently pressed back again and given a top-dressing of leaf-mould

mixed with a little sand or peat. There are plants, too, which are apt to decay if resting entirely on the sappy ground. Many of the *Aizoon Saxifrages*, for instance, if they are not growing in rocky clefts, are the better for a few small bits of stone put close round them to raise their rosettes a little from the ground.

Another great thing to remember is to clear off dead leaves. One is apt to think that they serve as a sort of warm covering for the plants in winter, and then, later on, make leaf-mould to nourish them; but they have just the opposite effect. They get heavy and sodden with wet, and it is the plant underneath which decays and dies long before the leaves do. During a spell of very hard frost a piece of wire-netting put over a delicate plant will give it a good deal of protection; but one should remember that most alpine plants will stand all the dry cold they are likely to get in England, and that their worst enemies are the soaking rain and damp, cold fog, of which one gets so much, when their vitality is lowest and they are least able to stand it.

A good deal of work can be done, too, when the weather permits, in the way of paving paths, which is a job that generally gets put on one side during the busy season, and anything in the way of alteration or extension of the actual rockwork so long as it does not entail moving plants.

If there are plants in frames or houses, they should be given as little water and as much air as possible, otherwise they are apt to get mouldy and damp off. In fine weather the lights should be opened as far as possible, and even during rain they should be tilted up a little so as to allow a current of air to pass through. Pots in frames are best buried up to the rims in sand or ashes, and a sharp look-out should be kept for slugs, which are often even more of a pest in winter, when their diet is restricted, than in the spring and summer, when they have an abundance of succulent, green shoots to feed on.

POLYGONUM CAMPANULATUM

THERE are several members of the Knotweed family that are very useful for decorating the garden in some position or another. One of the best of them is *P. campanulatum*, a

little-known species recently introduced from the sub-alpine Himalayas of Eastern Nepal and Sikkim, where it grows at an elevation of from 9,000 feet to 12,000 feet. It forms a bushy plant from 2 feet to 3 feet high, with long stems which terminate with cymes of pink and white flowers during September and October, and is now looking very graceful in the herbaceous border. It is quite hardy, and like many other *Polygonums* produces underground stems although nothing like to the extent of some of the more rampant kinds. The stock may be easily increased by division of the clump.



STENANTHIUM ROBUSTUM, THE MOUNTAIN FEATHER FLEECE.

A BORDER OF LUPINE
AND IRIS

BY GERTRUDE JEKYLL.

THE middle days of June bring the perfect bloom of the Flag Irises and the perennial Lupines. Where a space can be given to these and a few other kinds of flowers of the season a complete picture of flower beauty may be had. The border illustrated is on two sides of a narrow path. It is backed on the right by a hedge of flowering shrubs, and on the left and at the end by a hedge of Yew. It is carefully arranged for colour. On the left it begins with a bold patch of Anchusa Opal, with the white bloom masses of Olearia Gunnii at the foot. These are followed by blue and white Lupines in separate patches; then pink China Roses, blue purple and white Irises, and masses of blue Crane's-bill and Catmint, with white Pinks and Pansies to the front. Next come tall pale yellow Irises to the middle and back, grouped with Lupine Somerset and Golden Privet, a capital thing for clever use in this way. The colouring then passes by deeper yellows to some of the Irises of the squalens section of rich red purples, with red purple Lupines, a harmonious quality of colour being provided towards the front by a grouping of Incarvillea Delavayi, with a setting

of the deep reddish-leaved Heuchera Richardsoni. By now the end of the border is reached, and there is a group of white Tree Lupine with tall spires of Asphodel and pink China Roses. At the beginning of the return border on the right is the fine pink Iris pallida Queen of the May, with white and rosy perennial Lupine and a front planting of pink Pinks, and so on again through pale yellows to clear lilacs and purples, pinks and whites.

EELWORMS IN DAFFODILS

BY THE REV. JOSEPH JACOB.

IN 1907 an American book with the curious title "Daffodils, Narcissus and How to Grow Them" was published as one of "The Garden Library" series by Doubleday, Page and Co. The author, Mr. A. M. Kirkby, heads Chapter VIII. "The One Insect and the One Disease," and begins: "The Daffodil amateur has a happy lot in the matter of diseases and insects." But, alas! "Tears from the depth of some divine despair Rise in the heart and gather to the eyes, In . . . thinking of the days that are no more." We "old stagers," whose Daffodil life can go back twenty years and more, realise all too well that what we then thought Elysium was but a paradise

of fools. Segregation, multiplication, hybridisation and cultivation were all the time sowing seeds of pleasure and sorrow; and if we see the results of the former in the grand displays of a Williams or a Wilson on the show tiers, we have only to go into very many gardens and fields where Daffodils are grown to be painfully aware that Tares have come up with the Wheat. I believe one of the very worst of all these "Tar's" is the eelworm. In what follows I want (1) to call attention to their increasing prevalence, (2) to the signs by which they may be detected, (3) to some literature dealing with the pests, and (4) to the means to be taken for their destruction.

(1) From descriptive letters which I have received from various sources I feel sure that eelworms and not Fusarium are the main cause of much of the present trouble. As specific instances I can give (a) my own case. In 1914 I sent samples of affected bulbs to two different people (one in Ireland and one in England) to be tested for Fusarium. In both cases the reply was: "No Fusarium, but teeming with eelworms." (b) A letter in the *Gardeners' Chronicle* from Mr. A. J. Bliss, who sent bulbs to Wisley in 1913, when, "though no Fusarium was detected, Mr. Chittenden noted that eelworm (*Tylenchus devas-tatrix*) was found in nearly all of them and suggested that this was perhaps the cause of most of the trouble. It was not, however, until the following year, when the report on further



AN EARLY SUMMER BORDER AT MUNSTEAD.

bulbs sent was precisely the same, that I was convinced"; and (c) a communication from Mr. E. H. Krelage of Haarlem telling of scientific experiments which have been lately carried out at the Phytopathological Laboratory at Amsterdam by Miss Westerdijk, the Director. This lady has within the last three months been appointed Professor in Phytopathology at the University of Utrecht, and thereby becomes the first woman University professor of Holland. She says that *Fusarium* and eelworm attacks have much in common in their general appearance to the naked eye, but that "ring" disease, as it is termed in Holland, is much more dangerous. The suggestion is also made that part of the damage put down in England to the fungus may really be caused by the subject of this paper.

(2) The signs by which eelworms may be detected.—When eelworms have *entirely* got a hold of a bulb, they cause the basal plate to break away

the fingers until a later period still. (3) The literature dealing with the subject is very limited. As far as I know, we have only (a) Leaflet 46 on "The Stem Eelworm," published by the Board of Agriculture and Fisheries; (b) "Eelworm in Narcissus Bulbs," by T. R. Hewitt, a pamphlet reprinted from the Journal of the Department of Agriculture and Technical Instruction for Ireland, Vol. XIV., No. 2; and (c) an article in the *Gardeners' Chronicle* for August 19, 1916, by Mr. A. J. Bliss.

(4) With regard to a cure, I would call attention to the most interesting experiments recorded in the Irish pamphlet. The best thing, according to its teaching, is to immerse all slightly affected bulbs in a 5 per cent. solution of copper sulphate for a period of, say, twenty-four hours, as soaking for seventeen hours does not entirely kill all the eelworm. This should be done as soon after the bulbs are lifted as is possible. There is no hope for badly affected ones. In



SILENE HOOKERI IN AN ALPINE GARDEN.

from the upper tissues, and more frequently than not they protrude from the crack thus made in dense masses, which have all the appearance of crystallised cotton-wool. In an early stage one has to be a pretty smart detective to get on their track. My head man has got very good at the job, and I attribute the wonderful improvement in my stocks to his being able to "spot" affected bulbs in an early stage. His procedure is to thoroughly examine the top and pull the broken off, semi-dry bottoms of the old leaves slightly apart and, whenever it is possible, break off about an eighth of an inch to a quarter of an inch. If brown marks are to be seen in the section of the broken off leaf, eelworms are practically certain to be there. What I fancy is a more advanced stage is when the top of the bulb is somewhat wet and slimy. This is a sure sign of an attack. It is impossible to detect the presence of the enemy in bulbs by feeling and pressing them between

my garden we lift and *burn* all bulbs in February or March which show distorted foliage or from which none appears; then we carefully examine each one at the top when they are being cleaned in any stock known or thought to be affected, and repeat the process in two or three weeks' time. Lastly, we plant *late*, as we find that there is every hope of bulbs continuing immune in which no signs of eelworm have appeared before the middle of October. It is not a practice that I recommend, but "of two evils the less is to be chosen." For if it has not been entirely successful, it has reduced the percentage of affected bulbs enormously.

I ought to mention that we never plant in soil from which an affected stock has been lifted; at least, this has been our custom since we began to keep a sharp look-out in 1914. Mr. Bliss has made some most interesting observations on soil infection.

SILENE HOOKERI

THIS delightful plant ranks among the most beautiful of the large-flowered, dwarf-growing alpine, and with a little reasonable care it can be grown by all rock garden lovers. When well grown the size and profusion of its flowers and their brilliant colouring—a rich clear pink—quickly mark it out from its surroundings, and provide a feature of unique interest in May and early June.

The plant illustrated was placed in its present position five years ago, in a mixture of sandy peat, leaf-mould and limestone chips, and faces due south on the summit of a ridge. The surface of the soil is covered with pieces of limestone 3 inches to 4 inches square, and in very wet weather in winter the plant is protected by a piece of glass. This year the plant produced over a hundred blooms and set an abundance of seed.

NOTES ON VEGETABLES

Potatoes should be lifted without delay. In some localities, especially where the soil is heavy, disease is prevalent; therefore nothing is gained by leaving the tubers longer in the soil. In light soil, such as that overlying chalk, there is not much disease; but late varieties are promising to be small in the tuber owing to the drought experienced during June and the early part of July. Handle the tubers carefully to avoid bruising the flesh. The skin is not yet too hard but what it may be injured by rough usage, which is all against good keeping. Sort the tubers carefully, selecting the seed from 10z. to 20z. in weight. Store them on a dry shelf without exposure, as greening them is not a necessity. The thinner they are placed the better for a time until they are secure from disease, which sadly attacks some varieties after they are lifted and thought to be safe. The larger tubers should be spread thinly if not dry when lifted, as they keep so much better when the skin is dry. If they are in a fit state to store in bulk, sprinkle a handful of air-slaked quicklime among the tubers as the storing proceeds.

Spinach.—It is not too late to sow another batch of the prickly variety on a warm south border where the soil is light in character. The earliest-sown batch is now some 3 inches high, and where too thick in the rows it will be well to remove some of the weakly plants to induce a more sturdy growth, which will enable the plants to pass through the winter better. Occasionally stir the soil between the rows with a Dutch hoe to remove weeds, let in the air to the roots, and render a less favourable harbour for slugs, which are a great nuisance to the plants in showery weather. Slugs object to being constantly interfered with in their quarters.

Carrots.—The main batch should be lifted before they begin to make fresh roots, which so interferes with their keeping properties. Cut off the tops to within an inch or so of the crowns, and store the roots in sand in a cool shed or behind a wall where they will be secure from frost. Plant a few inches high in frames should be lightly thinned and the soil frequently stirred to accelerate growth.

Parsley sown in frames or in the open some time ago should be thinned where too thick, filling up any gaps. In some localities much difficulty is experienced in maintaining an outdoor

supply through the winter. Frames are then necessary. The plants in these need ample room and every encouragement to make good growth. Where the roots are badly affected by wireworms it is well to burn the soil before sowing or planting in frames. In some instances I have found paraffin a means of checking root troubles. Mix two wineglassfuls of paraffin or paraffin emulsion with four gallons of water, thoroughly soaking the soil.

Rhubarb.—Carefully lift some roots of such sorts as Early Albert, Victoria or Dawes' variety, in order to obtain the first supply at Christmas. Where possible place the roots in the Mushroom-house; failing that, in a deep and large box in a warm house or shed, occasionally sprinkling the crowns to keep the surroundings moist.

Turnips, where they are of full size and intended for winter use, should be pulled and stored in heaps in sand or ashes, first cutting off the tops close to the crown. Any shady site behind a wall will suffice if a cool shed is not available. Plants 3 inches high growing in the open will make nice roots early in the year if not allowed to become crowded in the rows. Frequently stir the soil, which aids growth considerably.

Cauliflowers.—Plants in frames intended for putting out next spring require all the light, air, space, and clean conditions to enable them to become sturdy and which will grow away quickly when the time comes for putting them into their permanent quarters. To preserve the heads now forming tie over the leaves. Any backward plants should be freely soaked at the roots with liquid manure.

Onions.—No time should be lost in storing the bulbs. Pull them carefully and expose them to the sun in a dry site. Before storing them see that none is inclined to decay. For preserving them during the winter months no plan is better than that of roping them thinly on pieces of cord or sticks and suspending the ropes from the roof of any cool-room, shed or cellar where air can penetrate freely.

All vacant plots should be cleared of weeds, Potato haulm, Pea-stakes, &c., burning all such to get rid of any form of fungus or disease; besides,

the ashes are of indisputable value for future crops. Deeply trench or dig any vacant plots, especially during dry weather. All such details carried out now will be a gain next spring, and the soil will be improved by having its surface further exposed. Too often such plots are left just as the previous crop was cleared until the next year, when so much has to be done that it cannot be done properly.

Swanmore.

E. MOLYNEUX.

NEWER ROSES WITH FRAGRANCE

To those who cultivate Roses purely for garden or house decoration, the loss of scent in the blooms is a serious drawback. No matter how gorgeous in colour or good in shape the blooms are, these latter points do not compensate for the loss of the fragrance which is really due and looked for in Roses. Fortunately, all the newly raised varieties are not scentless; therefore with a rigid selection of sorts in the newer varieties one may still enjoy the hobby. The following possess fragrance of a pleasing character, mainly of that old-fashioned type which we find in the old Cabbage and Hybrid Perpetual sections. The pride of place must certainly be given to Queen of Fragrance, which has again proved its value in that direction. After specially noting the above, I simply give the names of other desirable sorts as they occur to my mind, mainly, if not all, belonging to the Hybrid Tea section: William Cooper, Colcestris, Mrs. George Norwood, Mrs. Bryce Allan, Edgar M. Burnett, Hoosier Beauty, Edward Mawley, Edward Bohane, Ferniehurst, H. E. Richardson, George Dickson, Hadley, Mrs. Ambrose Ricardo, Mrs. Maud Dawson, Molly Bligh, Lord Kitchener, Archie Gray, Nelly Parker, Juliet, Rhea Reid, Lady Plymouth, Colleen, Iona Herdman and Avoca.

E. M.

ROSE MRS. C. E. PEARSON

In a recent note in THE GARDEN I find I inadvertently spelt the name of this Rose incorrectly. It is as well to be accurate, so perhaps space can be found for this short note which enables me to put the matter right. There is no doubt about the beauty of this flower. Just now my plants are bearing their third crop this year, and their flowers need not fear comparison with any other on that score, but it is a pity that the plant is not a stronger grower; it is really a Rose bush in miniature, seldom exceeding 12 inches in height. Planted closely together in a bed by itself such a dwarf grower may well have its uses; but with other Roses of ordinary growth as it neighbours it is apt to spoil the symmetry of the whole. Although undoubtedly a Pernetiana, it has not suffered from black spot with me; its only fault is that it will not grow; but it can be recommended to those who like a neat, formal little bush that grows all over alike and that does not send out an awkward side shoot to spoil its neat appearance.

H. E. MOLYNEUX.

Southampton.

VEGETABLE MARROW ROTHERSIDE ORANGE

THE Marrow illustrated is a selected variety from a large and varied batch of seedlings which were raised some few years back by Mr. F. H. Chapman,



VEGETABLE MARROW ROTHERSIDE ORANGE.

Rye, Sussex, as a result of crossing the well-known Custard Marrow with other garden varieties. The fruit illustrated has been isolated and "selfed" with a view to perpetuating its ideal qualities both as an exhibition and culinary sort.

A dish of the shapely little fruits will undoubtedly be an attractive and novel item in a collection of vegetables for exhibition, while its delicate flavour when cooked leaves nothing to be desired. Seeds of Rotherside Orange will probably not be obtainable until 1917, but in the meantime growers would do well to make a note of this remarkable and desirable novelty.

BRUSSELS SPROUTS

It is again advisable to draw the attention of new or inexperienced readers to the stupidity of a practice still finding many followers in some districts, particularly near towns, namely, the cutting away of the tops of healthy plants in order to secure an earlier crop of buttons. Obviously this practice means the loss of many scores of young Sprouts, which, if left to mature, would be at their best just at that season when greenstuff of all kinds is getting somewhat scarce. Again, it should be noted that in the event of a very severe winter, these large heads provide adequate protection to at least a portion of the Sprouts below, the proof of this being very evident a few years ago, when nearly all these beheaded plants in our district were killed outright at the time when we were gathering splendid supplies from plants fully exposed, but carrying all their leaves. One other point worth drawing attention to is, Why do so many small growers, instead of gathering only those Sprouts having real culinary value, persist in cutting away the plant at the ground-level, which course at so early a period means the sacrifice of more than half the crop? Possibly the reason is that in some districts market growers adopt this cutting down system; but with most of these the case is very different, the stems being sold at so much per dozen, and one object of the grower is to clear the land in as short a time as possible in order that a crop of some other kind can shortly take its place.

F. R. CASTLE.



ROSE MRS. C. E. PEARSON.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

Planting Apple Trees.—Apples may be planted in various positions and will succeed in almost any soil. Where the soil is heavy, drainage must be provided and deep planting should be avoided. If espaliers were planted around the vegetable gardens, much useful fruit would be secured, but often the Apple is grown as a standard. A fruit pergola is also an acquisition, and in such a way a number of kinds can be grown, whereby the supply is maintained over a long period. The following is a useful selection: Dessert—Langley Pippin, Worcester Pearmain, James Grieve, Christmas Pearmain, King of the Pippins, Cox's Orange Pippin, Fearn's Pippin, Adam's Pearmain, Rosemary Russet, Court Pendu Plat, Brownlee's Russet and Lord Burghley. Kitchen—Ecklinville Seedling, Stirling Castle, Domino, Rev. W. Wilks, Peasgood's Nonsuch, Warner's King, Lord Derby, Lane's Prince Albert, Bramley's Seedling, Wellington (Dumelow's Seedling), Newton Wonder and Annie Elizabeth.

The Kitchen Garden.

Lettuce.—Where a constant supply of Lettuces is required, it will be advisable to remove a few plants to cold frames, but the lights should be left off unless we experience frosts or have heavy rain.

Endive may also be treated in a similar way, but a few plants at intervals should be taken into the Mushroom house or shed to blanch.

Mustard and Cress must be sown in boxes occasionally and placed in the greenhouse, where the seeds will quickly germinate.

Asparagus.—When the foliage is sufficiently ripe it should be cut off, and the beds cleaned of weeds and rubbish. A light sprinkling of bone-meal may be given, also a top-dressing of well-decayed manure.

The Flower Garden.

Lawns.—These often contain a quantity of Plantains, Daisies and Dandelions, and they always increase during a cold, wet season. When the mowing is finished, they should be removed and the holes filled with fine soil containing a portion of grass seeds. The lawn may then be rolled, and such work may be repeated at intervals during favourable weather.

Sweet Peas.—In some parts of the country autumn-sown Sweet Peas produce very fine blooms in due season, and where they can be grown successfully a sowing may be made now in a shallow trench. If mice are troublesome, the seeds may be given a coating of red lead; and to keep off birds a few strands of black cotton should be stretched along the rows. A reliable mixed strain is very suitable for sowing at this season.

Begonias.—These may now be lifted and the tubers placed in shallow boxes to dry.

Dahlias.—If the weather keeps open, these will continue to produce a quantity of bloom; but directly the growth is injured by frosts the tubers may be dug up and stored in a dry shed where frost is excluded. Label each root securely; this will be an advantage when the time arrives for propagating.

Plants Under Glass.

Early Bulbs.—The bulbs of Roman Hyacinths and Paper-White Narcissi should now be examined, and if sufficiently rooted they may be removed from the ashes and placed in a cold frame. They must be shaded for a few days until the top growth becomes strong and green. In about a fortnight the best bulbs can be placed in a cool greenhouse and inured gradually to a warmer structure. Keep the roots well supplied with water.

Begonias.—Those belonging to the Lorraine group have been growing freely, and a few of the strongest plants may be allowed to bloom; likewise *B. elatior* and *B. Optima*. The later batch must still have their flowers removed, and be neatly tied before the growths are too far advanced.

Fruit Under Glass.

Cucumbers.—Close attention must be paid to watering, ventilation, atmospheric moisture, and

the regulation of the shoots if the plants are to continue bearing fruit. A night temperature of 65° to 70° will suffice. Keep the glass clean and feed the roots as they come to the surface.

Midseason Vines.—The Grapes having now been removed, the growths may be partly pruned to assist the buds near the base to plump up. If the border is dry, give it a thorough watering. Admit air freely. T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)
Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Asparagus.—As soon as the growths are well ripened they should be cut down to the ground level, the beds thoroughly cleaned of all weeds, and in the case of old-established beds a good top-dressing of manure or seaweed should be given. Where these are not available, an artificial fertiliser may be substituted.

Globe Artichokes.—All decayed stems and unnecessary leaves should now be removed, and the ground between the rows hoed and cleaned. Some long strawy manure should be placed around each crown as a protection before frost sets in. In districts where this plant is liable to suffer in the winter months, a quantity of suckers should be carefully removed from the plants, potted into 7-inch or 8-inch pots, and wintered in a cold frame where they can get sufficient ventilation in mild weather. These may be planted out on a well-manured piece of ground as soon as the winter has passed, when they will produce good supplies in summer.

Cucumbers.—To keep up a good supply of these from now onwards, careful attention is necessary both in the matter of watering and ventilation. Any water given to the roots must be heated to about the same temperature as that of the house. Syringing must be done more sparingly now, and the amount of moisture necessary will depend on the firing required to keep the house up to a uniform temperature of about 70°. Regulate and tie up the young growths to cover the trellis, pinching them at the second or third joint.

Tomatoes.—Admit air to the plants on all favourable opportunities, particular attention being given to those setting their fruit. Pollination should be assisted by brushing the flowers lightly with a feather or rabbit's tail. When the plants have set a few trusses of fruit, a little liquid manure may be given, especially to plants growing in pots.

The Flower Garden.

Roots of Dahlias and Tuberous Begonias should be lifted and stored before they get too much frost. A dry day with some wind and bright sunshine should be selected. Allow the tubers to remain exposed to the sun as long as possible. We find a sparred shelf in a frost-proof shed in close proximity to the stokehole the best place for wintering these, the Begonia tubers being stored with all the soil adhering to them.

Protecting Materials.—These should be secured in readiness for a spell of sharp frost, for it is not unusual for us to have 20° of frost early in November. In the Rose garden a considerable amount of protection is necessary, especially in low-lying valleys where hoar frost is prevalent. Standards should have their stems wrapped up in Bracken, which forms one of the best and tidiest of winter coverings. This should be cut when the fronds are turning yellow and treated to a winnowing process in the same way as grain in the harvest field, afterwards being stored until required for use. Light Spruce branches are also useful for protecting the heads of standard and umbrella or weeping Roses. Vases or boxes with specimens of hardy plants growing in them must also receive some attention. These may be packed up to the collar with Bracken. Breakable pots will require a thick covering of frost-proof material, the whole being thatched over to keep any moisture from obtaining access.

Herbaceous Borders.—A good deal of cutting over and tidying is necessary this month as the different plants pass out of flower. There are still

a number of late Michaelmas Daisies to flower, the latest of which will succeed only if the season proves to be a mild one. The rare occasions on which these are a success barely justifies their inclusion, unless in specially sheltered gardens.

Statice sinuata Mauve.—This plant succeeds well when treated as a half-hardy annual. The flowers, being everlasting, are useful for winter decoration. They should be cut when fully opened and hung up in bunches to dry in an airy shed. This plant retains a much better colour in the dry state than the perennial variety *latifolia*.

Plants Under Glass.

Azaleas.—If not already housed, these plants should now be placed under cover as soon as possible. Syringe them thoroughly with a strong insecticide before placing them in their winter quarters.

Poinsettias.—These, having now well filled their pots with roots, should have an occasional application of liquid manure. A Melon-house from which the crop has been removed suits them well at this time, giving a good exposure to all the sun and light available. The house should be ventilated freely on mild days, but avoid having the temperature lower than 60°. If too cold, the plants are liable to drop their bottom leaves, which greatly spoils their decorative effect.

Euphorbia jacquiniæflora is a good companion to the Poinsettia and one of the most brilliant of the winter-flowering stove plants, especially when planted out in a warm and sunny position. Good results may also be had from spring-rooted cuttings placed four or five together in small pots and potted on when well rooted.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

A GOLD MEDAL COLLECTION OF VEGETABLES

THE magnificent collection of vegetables shown by Messrs. Edward Webb and Sons, Stourbridge, illustrated on the opposite page, formed one of the most attractive features of the Royal Horticultural Society's recent show of vegetables. It was a highly representative collection of exceptional quality throughout. It included large and unblemished heads of Celery Aldenham Pink and Solid White, interspersed in the top row with Leeks Ringleader and Champion Prize, well finished and of good quality. Other features of the collection were Autumn Giant Cauliflowers, Parsnips of the Student and Marrowfat varieties, Carrots Red Intermediate and Prize Winner, Cucumber Telegraph, solid and indisputably large Onions of Ailsa Craig and Webb's Masterpiece varieties, Globe Beetroot, Gladstone Peas, Aubergines, Kohl Rabi, Lettuces, Capsicums, Tomatoes and comparatively small Marrows.

TREE LEAVES AND GARDEN FRAMES

MUCH more use should be made of tree leaves than is usually the case. Tree leaves should be used, first, to form mild hot-beds on which frames may be placed, and, after they have served their purpose as a forcing-bed, used in potting composts and for mixing with stiff soils in the garden and in composts for seeds. Leaves, when heaped and slightly moistened, soon engender a mild heat. Portable frames should be fixed on the heaps, and if a layer of ashes or Cocoanut fibre, or even common garden soil, sifted, be spread on them inside the frame, bulbs in pots or pans or boxes will grow splendidly. Many kinds of bedding-out plants may be kept in such frames, and seedlings forwarded in the early weeks of the New Year. As there is always a mild heat in the frame, a light outer covering at night will be sufficient. SHAMROCK.

ROYAL HORTICULTURAL SOCIETY'S TRIALS, 1916

THE following awards have been made by the Council of the Royal Horticultural Society after trial at Wisley:

LATE POTATOES.

Highly Commended.—Donside Defiance, raised and sent by Mr. D. Cook, introduced by Mr. M. H. Sinclair. King Edward, introduced and sent by Messrs. Dobbie and Co., raised by Mr. Butler. Rob Roy, introduced and sent by Messrs. R. Veitch, raised by Mr. A. W. McAlister.

Commended.—Arran Chief, sent and introduced by Messrs. Dobbie, raised by Mr. W. Kelvie. Cropper, introduced and sent by Mr. S. Anketell-Jones. Drumwhindle, sent by Mr. L. Gavin. Irish Chieftain, introduced and sent by "Lissadell," raised by Mr. F. J. McKenna. Langworthy, introduced and sent by Messrs. Dobbie, raised by Mr. Niven. Prolific, introduced and sent by Messrs. Dobbie. Superlative, sent and introduced by Messrs. Sutton, raised by Mr. W. Coleman.

Queen Alexandra, raised by Messrs. Watkins and Simpson, introduced and sent by Messrs. R. Veitch. **CLARKIAS.**

Highly Commended.—Elegans Brilliant, raised and introduced by Messrs. Watkins and Simpson, and sent by Messrs. R. Sydenham, Watkins and Simpson, and W. H. Simpson respectively. Elegans fl.-pl. Orange King, raised and introduced by Messrs. Watkins and Simpson, and sent by Messrs. Watkins and Simpson, R. Veitch and Barr respectively. Elegans Rose Beauty, introduced and sent by Messrs. Barr. Elegans Salmon Scarlet, from Messrs. Sutton. Elegans Scarlet Queen, raised and introduced by Messrs. Watkins and Simpson, sent by Messrs. Nutting. Elegans fl.-pl. Vesuvius, raised and introduced by Messrs. Watkins and Simpson, sent by Messrs. Watkins and Simpson, and Dobbie respectively.

Commended.—Pulchella Double White, from Messrs. R. Sydenham. Elegans Purple Prince, from Messrs. Barr. Elegans fl.-pl. Queen Mary, raised, introduced and sent by Messrs. Watkins and Simpson.

ANNUAL DELPHINIUMS AND LARKSPURS.

Award of Merit.—Blue Butterfly, sent by Messrs. Hurst; A.M., 1900, confirmed.

sent by Messrs. R. Veitch. Machet Giant Crimson, introduced and sent by Messrs. Watkins and Simpson. Machet Hercules, introduced and sent by Messrs. Barr. Paris Market, introduced and sent by Messrs. Barr.

Commended.—Gabriele, sent by Messrs. Hurst. Machet Improved, sent by Messrs. Barr.

BOOKS

The Cherries of New York.*—In the descriptive literature of fruits the Cherry has by no means taken a prominent place. It is necessary to go back nearly a hundred years to find a really elaborate monograph, and it is curious that no English pomologist has ever specialised upon this fruit. The reason is not perhaps far to seek. The short duration of the fruit and the comparatively limited area in which it can be grown have made its study difficult compared with such fruits as the Apple and Pear.

The appearance, therefore, of an authoritative monograph, such as the subject of the present notice, is somewhat of an event in the history of pomology. Coming as it does from the Geneva Experiment Station of New York State, and from the hands of Professor Hedrick, it may be taken for granted that no pains have been spared to collect all available information and present it in an attractive form. The descriptions of fruit and tree are of botanical accuracy, a point which only those who have wrestled with the incomplete and unsystematic descriptions of many older authors can fully value. The splendid full-size colour plates are probably the last word in colour photography, and are not, as often, mere decorations, but illustrations in the correct meaning of the word.

A great feature are the references under each variety to the works in which they have been previously described. Such verification of names is a matter of great difficulty, as the author would probably be the first to admit. It is, therefore, not surprising that we cannot quite agree in all cases with his decisions. We note that no references are given the valuable figures of the Cherries raised by Thomas Andrew Knight and depicted in the early Transactions of the Royal Horticultural Society, and those in Hooker's "Pomona Londinensis." For such varieties as Black Eagle, Elton, &c., these figures are of peculiar value as having been prepared under Knight's personal supervision, and their accuracy therefore cannot be called into question.

In the large majority of cases, however, no criticism can be made upon the descriptions, and gratitude will be felt for the author for gathering in one volume so large a collection of original matter and so much research that makes the book a mine in which pomologists will dig for many years to come.

* "The Cherries of New York," by U. P. Hedrick. Published by the New York Agricultural Experiment Station.



MESSRS. E. WEBB AND SONS' GOLD MEDAL COLLECTION OF VEGETABLES AT THE ROYAL HORTICULTURAL SOCIETY'S VEGETABLE SHOW.

The Chapman, raised, introduced and sent by Messrs. Dobbie. The Factor, introduced and sent by Messrs. Dobbie, raised by Mr. Chapman; A.M., 1901; F.C.C., 1905. The Provost, raised, introduced and sent by Messrs. Dobbie; A.M., 1907. White City, introduced and sent by Messrs. Sutton.

ANNUAL CARNATIONS AND INDIAN PINKS.

Highly Commended.—Heddewigii Crimson Bell, sent by Messrs. Barr. Heddewigii New Deeply Fringed, introduced and sent by Messrs. Barr. Heddewigii Star of Devon Strain, introduced and sent by Messrs. R. Veitch. Heddewigii superbissimus Mixed, sent by Messrs. R. Sydenham.

Commended.—Heddewigii Fireball, raised by Messrs. Watkins and Simpson, sent by Messrs. Dobbie. Heddewigii laciniatus, raised by Messrs. Watkins and Simpson, introduced and sent by Messrs. R. Veitch. Heddewigii laciniatus Vesuvius, from Messrs. Barr and Messrs. Watkins and Simpson. Heddewigii Salmon Queen, from Messrs. Barr. Heddewigii Single Mixed, from Messrs. R. Sydenham. Heddewigii superbissimus

Highly Commended.—Azure Fairy, raised, introduced and sent by Messrs. Dobbie. Azure Fairy, raised, introduced and sent by Messrs. Watkins and Simpson. Rosy Scarlet, from Messrs. R. Sydenham.

GODETIAS.

Award of Merit.—Lavender, introduced and sent by Messrs. Carter; A.M., 1915, confirmed.

Highly Commended.—Duke of Fife, sent by Messrs. Daniels; A.M., 1890. Schamini fl.-pl., introduced and sent by Messrs. Watkins and Simpson; A.M., 1905. Whitneyi Crimson Gem, sent by Messrs. Barr. Whitneyi Marchioness of Salisbury, sent by Messrs. Barr; A.M., 1895.

Commended.—Compacta Sunset, from Messrs. R. Sydenham. Schamini Double Carmine, sent by Messrs. A. Dickson. Tall Double Mauve, sent by Messrs. W. H. Simpson. Whitneyi White Gem, sent by Messrs. Barr.

MIGNONETTE.

Highly Commended.—Giant, introduced and sent by Messrs. Dobbie. Golden Queen, introduced by Messrs. Sydenham, sent by Messrs. Sydenham and Barr respectively. Machet, introduced and

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

PRIVET HEDGE AND HOLLYHOCKS (W. D.).—If the hedge occupies a conspicuous position, it would be better to leave it for a few weeks longer before cutting it down, so that the unsightliness will in some measure be confined to the winter season. You need have no fear of it breaking again. Every twig and branch will be bristling with new growth in the spring, the hardest wood coming away quite freely. You do not say to which variety you refer, but the oval-leaved one is the more vigorous. The bareness from such reduction as you propose must be endured for a time. The pruning may be done at any time from October to February, though there is no gain in delay, and the later the work is done the more will the season be advanced before the top is refurnished with growth. October or November would be good. There is no reason to destroy the Hollyhocks unless very badly diseased. You did quite right in burning the leaves. In all probability the disease will reappear next year; if so, try a salt solution, using a teacupful of salt to three or four gallons of water. Use an "Abol" Syringe to produce a mist-like spray to settle on the plants and not reach the roots. One bushel of lime, 4lb. of flowers of sulphur and 2oz. of sulphate of copper, finely powdered, is also good. Pass the whole through a sieve of fine mesh and well dust the plants with the mixture two or three times when damp during the growing season. You should commence early and endeavour to reach the whole of the surface of the plants.

ROSE GARDEN.

ROSE TO NAME (H. N.).—The Rose is *Perle des Blanchés*. It is a very old variety. You can improve your plant by cutting out a lot of the old wood, but growths produced this year should be retained 2 feet to 3 feet in length.

ROSES FOR LOW WALLS OF NEW GARDEN (C. D.).—You are well advised to plant some of the less vigorous growing Teas and Hybrid Teas on such low walls as are depicted in the photograph sent. Varieties such as *Anna Olivier*, *Lady Roberts*, *Betty*, *Mme. Abel Chatenay*, *Lady Hillingdon*, *Mrs. Herbert Stevens*, *White Maman Cochet*, &c., would be just the thing for such walls, especially for that facing south and the one facing south-east. Some of the China Roses, such as *Comtesse du Cayla*, would be delightful; so would *Irish Elegance* and *Irish Fireflame*. By all means plant *Rosa bracteata*, both alba simplex and *Maria Leonidas*, for their foliage is so beautiful. We should not hesitate to plant Teas in your part of Cheshire, as the walls would give much shelter. For the north wall we would advise the hardier Hybrid Teas, such as *Caroline Testout*, *Grace Darling*, *General Macarthur*, &c. We would rather not put a bower over the garden seat. You might plant two standards of varieties that make rather spreading heads, such as *William Allen Richardson*, and they would provide you with a little shade, especially if a growth or two were trained on to wires lightly placed over the seat. We note you are well preparing the soil. Good deep digging is essential, and this, supplemented by copious watering of the wall Roses during the summer, will ensure free growth.

FRUIT GARDEN.

VINES BADLY MILDEWED (Miss B.).—Judging by the size and appearance of your Grapes, your Vines must be in a poor condition of health, and until a more robust condition is restored, the Vines are certain to be attacked by mildew. The best thing to do would be to clear out most of the old soil of the border and replace with best new Vine soil. A good time to do this is at the end of October or early in November. Whoever is entrusted with this work should be a skilled gardener well versed in the growth of Grapes, whom you should have no difficulty in finding in your neighbourhood. In any case, the Vines as soon as they have been pruned should be well washed with Gishurst Compound Mixture, obtainable of any seed merchant, and then painted over with a mixture of sulphur and soft soap. Dissolve a pint of sulphur and the same of soft soap in as much hot water as will make a thick emulsion of it, and then add two quarts of warm water, painting every part of the Vines with it as

soon as it is cool. The vinery at the same time must be thoroughly washed and cleaned out.

MISCELLANEOUS.

NAMES OF FRUIT.—*Southport Botanic Gardens.*—1, Green Pear of Yar; 2, 3 and 6, Brown Beurré; 4, Old Bergamot; 5, Durondeau; 7, Frogmore Prolific; 8, Urbaniste; 9, Autumn Bergamot; 10, Cat's Head.—*Enquirer.*—1, Cox's Orange Pippin; 2, Rosemary Russet; 3, Hall Door; 4, Malster; 5, Cellini; 6, local variety, not recognised.

NAMES OF PLANTS.—*H. M. T.*—Michaelmas Daisies: 1, Grace; 2, Porcelain; 3, *ericoides superbus*; 4, Ceres; 5, William Marshall; 6, Fairfield; 7, Lil Fardell; 8, *præcox*; 9, Groil.—*S. H. B.*—1, a form of *Clematis Viticella*; 2, *Vitis heterophylla*.—*H. M.*—*Euonymus latifolius*.—*B. H. H.*—*Cuphea miniata*. Yes; the weed-killer is poisonous to birds and animals.—*M. B., Derby.*—*Chrysanthemum uliginosum*; *Helianthus lactiflorus*.—*A. V. B.*—True Alonsoa Warszewiczii.

SOCIETIES

ROYAL HORTICULTURAL SOCIETY.

The fortnightly meeting held on October 10 was full of interest in several departments, fruit, hardy flowers, choice shrubs and Orchids being well shown. Very striking and beautiful were the Roses from several sources, the single Princess Mary from Mr. Hicks being quite a feature of the show. Dahlias, among other flowers, were well presented, and some few novelties received awards.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. J. W. Barr, W. J. Bean, J. Green, G. Reuthe, R. Hooper Pearson, J. W. Moorman, W. Howe, J. Heal, C. R. Fielder, J. Jennings, C. Dixon, J. Dickson, C. E. Shea, C. E. Pearson, W. P. Thomson, E. H. Jenkins, W. G. Baker, G. Paul, H. Cowley, E. A. Bowles and W. B. Cranfield.

Messrs. J. Piper and Sons, Bayswater and Barnes, contributed a considerable collection of shrubs and climbing plants in pots, among which some of the newer Chinese Vines took a prominent place. Of more than usual interest was the erect-habited *Olearia semi-dentata* with silvery stems, the leaves white below. It is of free growth and some ornament even when not in flower. *Elsholzia Stauntonii* (with erect, pink-flowered spikes), *Osmanthus armatus* (very ornamental and well spined), *O. rotundifolius*, *Rubus Veitchii* (silvery foliage), *Ilex Pernyi*, *Buddleia macrostachya yunnanensis* (white flowers and woolly foliage), *Caryopteris Mastacanthus* (a blue-flowered shrub now in season), *Feijoa Sellowiana* (a rare shrub), *Senecio Grayi*, *Viburnum Henryi* and *Guevina Avellana* were very good. *Lonicera Maackii*, with scarlet fruits, was highly ornamental.

Mr. L. R. Russell, Richmond, staged on the floor a collection of Tree Ivies, the plants varying from 1 foot to 4 feet across. Standards of many were also on view, thus showing the utility and decorative value of the Ivy when grown in these ways.

Mr. George Kerswell, St. Thomas, Exeter, brought a brilliant lot of *Gentiana acaulis*, flowers which, making a gorgeous picture at any time, are more than usually acceptable now.

The Roses from Mr. George Prince, Oxford, were very fine. Great stands and baskets of such as *Moonlight* (white), *Josephine Nicholson* (pink), *Mme. E. Herriot*, *Mrs. Alfred Tate*, *Rayon d'Or*, *Old Gold*, *Lady Hillingdon*, *Mrs. H. Stevens* (very pure white and of beautiful form), *Ethel Malcolm* (flesh), *La Tosca* and *Mrs. David McKee* (cream) were among the finest of a particularly good lot.

Messrs. Allwood Brothers, Hayward's Heath, showed Carnations excellently and in great variety. *Bishton Wonder*, *Mandarin*, *Wivelsfield White*, *Nancy* (new salmon pink), *Nora West* (also superb pink), *Destiny* (new cerise), *Benora* (white fancy, fragrant) and *Mary Allwood* were the pick of the collection. They were very finely presented.

Hardy plants from Mr. G. Reuthe, Keston, included white and coloured *Colchicums*, *Campanula muralis* (still full of flower), *Desfontainea spinosa*, *Polygonum amplexicaule*, *Cimicifuga simplex*, *Satyrion carneum*, *S. roseum*, *Phygelius capensis* and others. *Phillyrea viburnoides*, a new and rare shrub, was noted. *Nerines* in variety were also shown.

Messrs. G. and A. Clark, Limited, Dover, showed *Cimicifuga simplex* Clark's Variety perfectly. The exceptional purity of the columnar spikes renders it highly attractive. *Aconitum Wilsonii*, *Caryopteris Mastacanthus* and *Aster Climax* were all well shown.

Magnificent Roses were shown by Mr. Elisha J. Hicks, Hurst, Twyford, Berks, the brilliant single crimson *Princess Mary* and the creamy semi-double *Joanna Bridge* being conspicuous among them. The new Hybrid Tea *C. E. Shea* (pink) was in grand form, as were also *Ophelia* (pink and white) and *Mme. Edouard Herriot*. Rarely have these Roses been shown more brilliantly or in better form.

Messrs. John Waterer, Sons and Crisp, Bagshot and Twyford, displayed an assortment of the finer Michaelmas Daisies, *Lustre* (fine semi-double red), *Splendens* (blue), *Cloudy Blue* (pale sky blue), *Beauty of Colwall*, *cordifolius* *White Diana*, *Nancy Ballard* (rosy mauve) and *Aster Amellus* (ultramarine, rich and intensely coloured) being some of the more distinct. In another group *Grevillea sulphurea*, *Cotoneaster pyrenaica* (of semi-prostrate habit), *Pittosporum eugenioides variegata*,

Viburnum rhytidophyllum, *Leptospermum bullatum* (white flowered), *Lonicera sempervirens*, *Acer crataegifolia* (one of the most brilliantly coloured), *Caryopteris Mastacanthus* and *Berberis verruculosa* were shown.

Specimen tub-grown Michaelmas Daisies from the Hon. Vicary Gibbs, Elstree, included *Namur* (rosy pink), *Mons* (reddish purple), *Brussels* (soft lavender blue) and *Aerschot* (semi-double blue of large size).

Messrs. W. Cutbush and Sons, Highgate, N., produced an excellent effect by staging the best Michaelmas Daisies freely; *Avalanche* (white), *Climax* (blue), *Sirius* (rosy, very effective), *White Diana* and *Little Bo-Peep* were among the more distinct. Golden Rods and other autumn flowers were also included in the group.

Mr. J. B. Riding, Chingford, contributed for the time of year an excellent table of Dahlias, several sections being included. *St. George* (decorative), *Giant of Lyons* (*Coliarette*), *Marianne* (of lovely orange tone and a good bedding sort of dwarf habit), *Coibri* (crimson and white), *Soldier's Lass*, *Délice* (the best pink), *Eden* (white *Coliarette*) and *General Smith-Dorrien* (scarlet *Cactus*) were among the more distinct in a capital lot.

Messrs. Baker, Wolverhampton, filled a table with a selection of Michaelmas Daisies, the best of which were *J. S. Baker* (new semi-double white), *Edith Godwin* (good blue), *Glory of Colwall*, *Peggy Ballard* and *Blue Gem* (the finest blue we have yet seen). *Helianthus sparsifolius*, *Scabiosa caucasica* and a variety of the Japanese *Anemones* were also shown.

Messrs. H. B. May and Sons, Edmonton, contributed *Rex Begonias* in variety, *President Carnot*, *Le Vésuvé*, *Lady Veitch*, *Fascination* (most brilliant in colour) and *Silver Queen* being some of the best. Ferns, *Bouvardias* in variety, *Hydrangea Mme. Moulière* (white) and a variety of hardy Ferns were also good. *Nephrolepis todeoides* was finely displayed.

Mr. W. Wells, jun., Merstham, showed *Delphiniums*, *Rudbeckia* (*Echinacea*) *purpurea*, *Tritoma Macowanii*, *Asters* *King George*, *King of the Belgians*, and *Brightest and Best*. *Cimicifuga simplex* fronting *Lilium tigrinum Fortunei* made a good show.

Messrs. J. Cheal and Sons, Crawley, showed excellent Dahlias, *Evening Star*, *Morning Star*, *Crawley Star*, *Scarlet Star* and *White Star* being a set of the best. Single-flowered sorts, too, were very good, *Leon* (scarlet) and *Albatross* being notable varieties.

Violets from Mr. J. J. Kettle, Corfe Mullen, were among the features of the show. They were admirably presented. *La Belle Parisienne*, *Mrs. J. J. Kettle* (light blue), *Marie Louise*, and *Comte de Brazza* were among the best. A new semi-double seedling was full of promise.

The Misses Hopkins, Shepperton, contributed hardy plants in variety, *Gentians*, *Potentilla Willmottæ* and others being included.

Messrs. Paul and Son, The Old Nurseries, Cheshunt, showed *Salix pruinosa*, *Laurus*, *Cerasus cheshuntensis* (*azorica* × *lusitanica*), *Prunus Pissardii nigra* (very fine in colour), *Pinus yunnanensis*, *Pyrus Vilmorini* (standard plants), and other interesting trees and shrubs.

Messrs. J. Cheal and Sons, Crawley, had a collection of cut shrubs to show autumn foliage, also *Ceanothuses* and a few others in flower. *Pernettyas* in fruit were attractive. Cut shrubs formed a group alone.

The Rev. J. H. Pemberton, Romford, showed good Roses, *Queen Alexandra*, *Comtesse du Cayla*, *Rayon d'Or* and *Moonlight* being some of the more showy and good.

ORCHID COMMITTEE.

Present: Sir Harry J. Veitch (chairman), Sir Jeremiah Colman, and Messrs. J. O'Brien, Stuart H. Low, R. A. Rolfe, F. J. Hanbury, R. Thwaites, Pantia Ralli, T. Armstrong, Walter Cobb, J. Charlesworth, J. Cypher, C. H. Curtis, W. H. White, S. W. Flory, W. Bolton, C. J. Lucas, R. B. White, Gurney Wilson and C. Cookson.

Messrs. Armstrong and Brown, Tunbridge Wells, showed very fine examples of *Cattleya* *Lord Rothschild*, *C. Fabia*, *C. Armstrongæ*, *C. Iris* and others of great beauty. *C. Saturn*, a pure white sort, was very fine.

In Messrs. Charlesworth's collection the best things were *Sophro-Lælio-Cattleya Lutetia* (reddish purple and crimson), *Brasso-Cattleya Leemanniae*, *Lælio-Cattleya amabile*, *Brasso-Cattleya Veitchii* *Queen Alexandra* (almost pure white) and *Lælio-Cattleya Numidia* (of red and orange tone).

Messrs. Hassall and Co., Southgate, N., contributed a series of *Cattleyas* and *Lælio-Cattleyas*, *L.-C. Zena* var. *Princess*, *L.-C. Zena* var. *Duchess*, and *Cattleya Naidia*, being among the finer in the group.

Messrs. J. and A. McBean, Cooksbridge, showed the pure white *Cattleya Cowaniana* alba, *C. Hardyana* and *C. Lord Rothschild* among many others.

A fine plant of *Vanda cærulea* was shown by Mr. C. F. Waters, Balcombe, Sussex.

Messrs. Sander and Sons, St. Albans, had the pure white *Cattleya Lady Veitch* var. *superbissima*, *C. Fabia* alba *Rex* and the pure white *Cælogyne Mooreana* among others.

FRUIT AND VEGETABLE COMMITTEE.

Present: J. Cheal, Esq. (chairman), Sir Albert Rollit, and Messrs. W. Wilks, Owen Thomas, P. D. Tuckett, Edwin Beckett and E. Bunyard.

The Barnham Nurseries, Barnham, Sussex, contributed some excellent fruit in baskets, Apples *Egremont Russet*, *Charles Ross*, *Newton Wonder*, *Ben's Red*, *Lane's Prince Albert*, *Warner's King*, *King of the Pippins*, *Rev. W. Wilks*, *Allington Pippin*, *Washington Nonpareil* and *Brownlee's Russet* being among the more important.

C. A. Cain, Esq., Welwyn, Herts (gardener, Mr. T. Pateman), contributed a fine table of fruits, for which the Hogg Memorial Medal was awarded. Grapes were freely shown, also Apples, Pears, *Lord Palmerston* and *Sea Eagle* Peaches, and *Golden Drop* and *President* Plums.

THE GARDEN.

No. 2344.—Vol. LXXX.

OCTOBER 21, 1916.

NOTES OF THE WEEK

WHILE the articles in this special issue are mainly about Roses, we are not unmindful of the very important gardening work necessary at this season in order to increase the food supply of the nation. The recent action of the Government in controlling the wheat supply should bring home to us all the importance of producing the utmost from the land, and gardeners may best serve the national interest by growing, within reason, as many fruits and vegetables as they possibly can.

Small Potatoes.—We have lately received many complaints from readers about the very small size and immature condition of their Potatoes. In nearly all cases the trouble may be traced to the Potatoes being planted late in newly cultivated ground. One of the first essentials for the successful cultivation of Potatoes is good tilth, and this is best obtained by digging the ground in autumn and leaving it in a rough state to be sweetened by air and frost until the time of planting comes round. To neglect to cultivate land is equivalent to wasting the food of the nation, and we appeal to those who have access to waste land to do their utmost to bring it into cultivation this autumn.

Potato Prices in Scotland.—High prices are being realised for Potatoes in Scotland at the various sales of growing crops. On one farm in the Crieff district of Perthshire £89 per acre was obtained for Arran Chief, this being believed to be a record price. Other lots realised from £20 to £62 per acre.

Autumn Flowers on Rhododendron intricatum.—Reference has on several occasions been made to this charming little Rhododendron as a spring-flowering plant, but this year it appears to have altered its character and is flowering at the present time, violet blue blossoms being in sufficient numbers to create a really effective display. The out-of-season flowering must have an effect upon the blossoms of next spring; but, nevertheless, they are welcome now, a time when flowering shrubs are

few. *R. intricatum* should be kept in mind by people who require dwarf, neat-growing evergreens to plant among sandstone rocks or in a moderately moist position in peaty soil in the rock garden, for in such a situation it is specially attractive.

Lespedeza Sieboldii.—Flowering in October, when there are few hardy shrubs in bloom, this leguminous shrub is very valuable. It is a native of North China and Japan. The best display of flowers is obtained by cutting the growths down not far from the ground level each year in early spring. In most seasons Nature does this, killing most of the previous season's wood. The annual pruning induces the production of

vigorous young growths, which by this time are some 4 feet to 5 feet high, the lower half clothed with elegant trifoliate leaves, the upper half forming a large inflorescence of Pea-shaped, rosy purple blossoms. It naturally depends somewhat upon the weather, but given fairly favourable conditions during October there is an abundance of blossoms and unopened flowers to prolong the display throughout the month.

An Old Archway Rose.—One may search in vain through many modern catalogues of Roses for a reference to *Adelaide d'Orleans*. It is not even mentioned in the National Rose Society's Official Catalogue, and yet it is one of the sweetest of all Roses for an archway. It is, in fact, one of the very few Roses that may be seen to advantage from underneath an archway. So many Roses make a fine display from above, but this is not always the most convenient way of seeing them, while *Adelaide d'Orleans* sends down its flowering branches as if to greet the passer-by.

Rose Adelaide d'Orleans and Its History.—The accompanying illustration, from a photograph taken in the gardens of Myddelton House, shows the true character of this delightful old Rose, with its fine mass of blush-coloured flowers and deeper-coloured buds almost hiding the foliage. It makes long and pleasantly slender growths, which may be trained anyway or anywhere. Mr. E. A. Bowles gives its history in his delightful book "My Garden in Summer." It is one of a set of seedlings raised by M. Jacques when head-gardener at *Château Neuilly* to the Duc d'Orleans, who afterwards became King Louis Philippe. *Rosa semper-virens* was the species used as the seed parent, and the best known of his creations is *Félicité et Perpétue*. *Adelaide d'Orleans* was raised in 1826, two years before *Félicité et Perpétue*, and it is hard to explain how it is that one should be grown in almost every garden while the other is rarely seen.



ROSE ADELAIDE D'ORLEANS ON PERGOLA ARCH.

** Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

A Letter from the Front.—THE GARDEN reaches me regularly each week, and helps to remind one that there *are* other things than war, and that even the Hun cannot prevent good plants flourishing. The harvest out here seems to have been an excellent one, and was got in surprisingly quickly. Fruit is poor, but then there are few orchards, and those infested with woolly aphis. Sugar Beet is a heavy crop. This year the people appear to have carried on sporadic cultivation even much closer up to the line than they did in 1915. I have been interested in the

Damson Merryweather.—I was very pleased to see the reference by "E. B." to this splendid Damson in your issue, October 7, page 487. It is a grand bearer even in the young tree, and I enclose a photograph of a branch from a tree planted in my garden three years ago. The fruits are delicious and make excellent preserves.—C. H. W.

Florentine Fennel.—May I, as one who has spent much time in Florence, advise intending importers or growers against an attempt to introduce this plant commercially here. I used to notice there that strangers at hotels and pensions on first arriving were very interested in this strange vegetable, but after a very short time refused it when it was handed round, while residents seldom touched it. The flavour is too strong, and can only be endured by those who can eat Garlic.

seeds at home, even if much trade is done outside the German Empire. The names of Benary, Heinemann, Lambert, Neumann, Pfitzer, Seidel, and many others in the horticultural trade there are sufficient to prove that. Then when we look at a work like Dochnahl's "Bibliotheca Hortensis," we find hundreds of gardening books written in German between 1750 and 1860, and there have unquestionably been hundreds since. Surely there must be a considerable interest in gardening in Germany, for who else would want gardening books in that language save the natives? —C. H. P.

Novel Potato Production.—I read with interest the illustrated article on this subject in THE GARDEN of September 30, page 480. Allow me, however, to correct the statement made there that Mr. G. Stanton, late steward at Park Place, Henley, was a few years ago "the fortunate discoverer" of this system of growing Potatoes. I first heard of it from Mr. John Young, Barnton Gardens, Davidson's Mains, who saw it practised by the late Mr. David Thomson, when serving his apprenticeship under that capable gardener in the Duke of Buccleuch's gardens at Drumlanrig, Dumfriesshire, nearly fifty years ago. Mr. Thomson had previous to that practised the system in the vicinity of London. I drew attention to this matter a few years ago at a meeting of the Scottish Horticultural Association, when the late Mr. D. W. Thomson, nurseryman, Edinburgh, quoted an article on the above subject from the original *Scottish Gardener* of a date over forty years previous. The article quoted by Mr. D. W. Thomson was by his father, the late Mr. David Thomson, Drumlanrig, who was editor of the original *Scottish Gardener* during all the years of its existence.—CHARLES COMFORT, Broomfield Gardens, Davidson's Mains, Midlothian.

Bottling Apples and Pears.—In addition to the usual stone and soft fruits preserved in the patent bottles, there are two others we find most useful and delicious. Keswick Codlins, gathered as soon as they have reached maturity, peeled and sliced with a silver knife, thrown at once into water, and sterilised in the usual manner, are far superior in the spring for tarts and other dishes to Apples that have been stored, or foreign fruit. Williams' Bon Chrétien Pears when just fit for dessert, peeled with a silver knife, halved, and bottled in thin syrup (6oz. of sugar to a quart of water) are most delicious. These are the Bartlett Pears from America sold in the shops. Williams' Bon Chrétien was introduced into America about a century ago by a man named Bartlett, and is there called the Bartlett Pear. Louise Bonne of Jersey and other good dessert Pears answer well when preserved in this way. Pears are the only fruits we bottle in syrup; water is used for all the others. We have used for the last fifteen years with unvarying success the steriliser and patent vacuum bottles sold by Messrs. Fowler, Lee and Co., Reading. Strawberries and Black Currants bottled three years ago are still in perfect condition. We have just bottled a quantity of ripe Tomatoes, some whole, some as purée, ready prepared for soups and sauces. The whole Tomatoes require sterilising a second time forty-eight hours after the first. The skins do not break, and their colour and appearance are perfect. An excess of temperature must be avoided; it is this which makes the fruits rise in the bottles. If the bottles are opened to refill, there is a considerable loss of aroma.—(Mrs.) A. R. PHILLIPS, Oxford.



A GOOD CROPPER; THE MERRYWEATHER DAMSON.

correspondence on the loss of scent by the Musk plant. It involves, I believe, a very wide question, the solution of which will go far to unravel the mysteries of variation. There seems but little doubt that the majority of variations which have so far been investigated result from the loss of a factor, or factors. I wonder that none of your correspondents has compared this case with the sudden and widespread variation in *Nephrolepis exaltata*, which produced so many crested forms, such as *todeoides*, *Marshallii*, and hosts of others of both European and American origin, during the first few years of this century. On reading this through I fear that I may give the impression that I believe the scentless condition of Musk to be due to the loss of a factor; it may be caused by the presence of an inhibitor!—C. L. TITCHMARSH, I. Corps H.Q., B.E.F.

The word in Tuscan slang, by the way, is about the most offensive that can be applied to any individual. The plant can certainly be cultivated successfully in this country, for my uncle, Judge Cox, used to grow it in the light soil of his garden at Tonbridge.—W. HERBERT COX, 9, Gray's Inn Square, W.C.

The Gardens of the Fatherland.—To anyone who has a knowledge of German horticultural literature, or who has attended International horticultural shows on the Continent, it comes as a great surprise to learn that the German has an entire lack of love for the garden. Miss Topham may be quite right so far as her experience goes, and probably near Dantzic and in East Prussia generally there may not be the same extent of love for the garden as is found here. But surely there must be a great demand for plants and

A Sub-Irrigation Device.—It has occurred to me that some of your readers may be interested in a method of sub-irrigation which I have used with some success during the past year. The soil of my garden is Surrey sand of the lightest

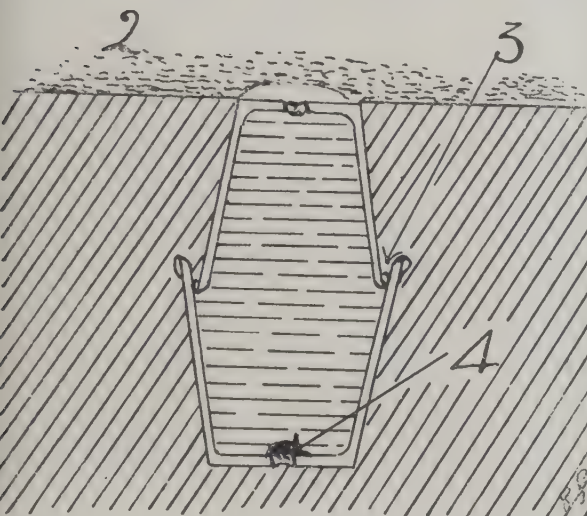
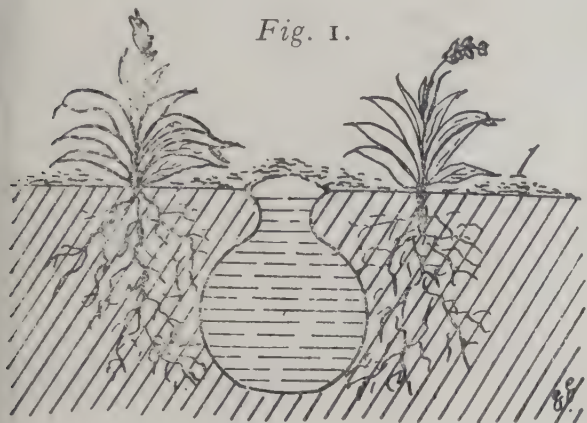


Fig. 1.

Fig. 2.

A METHOD OF SUB-IRRIGATION.

1, Ground level showing vessel sunk; 2, ground level showing pots sunk; and 3 and 4, cemented to contain water.

description. The effects of as much as 3 inches of rainfall—as judged by moisture-loving plants—disappear in two or three clear, hot days. The growth of such species as *Meconopsis*, for example, necessitates daily watering during the shortest spell of dry weather. In these circumstances I decided to try the effect of a device often used by Indian gardeners and tree planters, especially when the plants cannot be visited daily. It consists in burying a vessel of porous earthenware near the plant and filling it with water as required. The vessel used in India is the ordinary “chatty,” or “ghara,” which is in universal use for storing water. It contains from one gallon to two gallons of water. Its shape (in section) is shown in Fig. 1. As these vessels cannot be procured here, I had some made by the local potteries, and it is an interesting reflection on the comparative cost of labour in the two countries that, whereas the cost in India is about ½d., I had to pay 7d. for each! I find that in the hottest and driest weather, two gallons of water in a buried pot of this description will keep the surrounding soil in a moist condition for a week. A further advantage is that, while rain is falling, transpiration of moisture through the walls of the pot almost ceases. I have used this device to grow *Meconopsis* (sp.), *Lobelia cardinalis*, *Lilium*, &c., with fair success. *Iris anglica* and *I. Wilsonii* also did well, but I had no success with *I. Kämpferi*, which probably

requires bog conditions in a soil like mine. Owners of rock gardens might find this method useful in the case of plants which require dryness overhead and a moist root-run. It may be noted that a suitable vessel can be improvised from two flower-pots cemented together mouth to mouth, as shown in Fig. 2. If one pot is slightly smaller than the other, a watertight joint is easily made.—A. B. B.

Viola arborescens.—In reply to Mr. Cox, I regret his plants did not turn out to be *Viola arborescens*. I find that none of the plants raised and flowered has proved true. I may add that the seeds were from a famous Irish garden, and I fully expected them to be reliable.—T. HAY.

Gooseberry Mildew.—After reading Mr. T. Wilson’s note I feel like asking: Why all this pother; why murder one’s bushes; why bother about lime-sulphur spraying, especially as the Royal Horticultural Society only recently published a formula that effectively put “paid” to the disease? As it happens I have the formula in my note-book, and it reads: Copper sulphate, 40½ oz.; washing soda, 45½ oz.; soap, 100 oz.; water, 100 gallons. Dissolve separately; mix when cold, adding the soap last; spray the bushes when dry. Perhaps Mr. Wilson has not heard of this Wisley formula.—T. A. W.

POT-POURRI.

Roses, royally red,
Deep in the heart of you
Dwells some intangible
Innermost part of you,

Which (since I cannot keep
Fadeless the whole of you)
I will imprison here—
The fragrant soul of you;

Here in this china jar
Guarding the best of you,
Till I am too, perchance,
Dust with the rest of you.

JANET READ, in *Country Life*.

Ornithogalum arabicum.—In 1914 and again in 1915 I obtained some bulbs of this from Guernsey, in both cases from the same dealer. Those which I got in 1914 did extremely well grown as pot plants in a cool greenhouse, and in due time died down and gave hard, healthy bulbs when shaken out of the soil for repotting the following September. This is my point: Neither the new bulbs bought in 1915 nor my own home-grown ones, although potted in early October last year, have ever shown any sign of life above ground from that day to this, although when the bulbs were examined in early July they were as sound and as hard as when they were planted. I recently visited a large garden where the “head” told me he had had a similar experience, but that he was at a loss to account for it. If any reader of THE GARDEN could throw light on this singular behaviour of *O. arabicum*, I, and very probably others, would be grateful. Will the bulbs start again into growth this coming spring, or has their “time” come? If they do take a new lease of life, will they be any the worse for their long disappearance? Is this unusual, or is it by no means infrequent? Does this in any way correspond to the long sleep that *Freesias* and certain species of *Lachenalias* from time to time indulge in?—JOSEPH JACOB.

THE MACARTNEY ROSE

By EDWARD H. WOODALL.

I AM glad to know that *Rosa bracteata* grows with such vigour on a wall in the warmer parts of England, for it is charming in autumn when its bright, glossy foliage is set off by the pure white petals and golden stamens of its sweet-scented flowers that succeed one another for many weeks on a warm wall. My principal motive, however, in writing this note is to remind Rose-lovers of its peculiar merit as a stock on which to bud Roses that seem refractory.

There certainly are some Roses that grow better and colour far more brilliantly on this stock than on any other, and it is well worth a trial when you have a good Rose that refuses to do well with you on any ordinary stock. Quite ten years ago I budded that beautiful but most capricious Rose *Georges Schwartz* on *R. bracteata*, and now the bush is stronger and more vigorous than ever, while on any other stock it dwindles and dies out after two or three years. Another Rose that is quite marvellous in growth and colouring on this stock is *General Gallieni*; its size and brilliance are quite abnormal, especially in spring, when the first blooms on any other stock are defective in colour and shape. So, though it may not be a stock for the nurseryman, it is well worth a trial by the amateur.

Speaking for myself, if ever I garden again in England I should plant the Macartney Rose in some cold shelter house for the sake of experimenting on it with refractory Roses. I am sure there would be some surprises! All the Pernetiana



ROSA BRACTEATA, THE MACARTNEY ROSE.

A lovely Rose on a warm south wall, and a useful stock on which to bud certain capricious varieties.

Roses refuse to thrive in the dry and rather hot climate of the South of France, but I shall put in a few buds of Constance to see if by chance it succeeds on this stock, and I am hoping to try that new Rose Mrs. Wemyss Quinn when it is obtainable here. It has gained the prize for the best Rose of the year at Bagatelle, and it will be amusing to see how good French gardeners will wrestle with such an utterly unpronounceable name from a French point of view; and I look forward to recording results.

A sudden storm and drop in the temperature drove me back to Nice much earlier than I had intended, and so I arrived before the first welcome rains of autumn had arrived. The heat and drought of summer have given the Roses a splendid rest, and pruning is now nearly finished—only just in time, as Michaelmas Day and the previous day were a deluge of warm rain with the thermometer steady at 70°. In one short week the growth and vigour of the young shoots testify to the effect of rains falling on warm ground, so by the

NOTES ON SOME WICHURAIANA ROSES

BY "WHITE LADY."

THERE is no longer any need to urge the claims of the Wichuraianas as garden Roses. Travelling lately by railway through England and Wales, I could not help being struck by the ubiquity of Dorothy Perkins. We saw the familiar bunches of pink blossoms waving from countless railway stations, brightening up many which without them would have been but dull little places. A year ago, motoring through the same country, we noticed that Dorothy Perkins had found her way into almost all the cottage gardens whose owners appeared to have any care for flowers.

In the little villa gardens round London and other big cities this popular rambler is nearly

and which are not seen so often in gardens as their merits deserve.

Debutante (Walsh, 1905) is to my mind one of the most graceful in habit of all the Wichuraianas for clothing a tall pillar. It throws out from the main stems slender arching sprays of light green leaves with ruddy tips, and lightly hanging cascades of pale pink sweetly scented flowers. It usually blooms about ten days earlier than Dorothy Perkins and the flowers do not last so long. Dr. Williams gives it credit for sometimes flowering in the autumn. I have not noticed any autumn blooms on our plant, but instead it produces a lot of little berries.

Gerbe Rose (Fauque et fils, 1904) is a delightful plant. The smooth, almost thornless, stiff stems are covered with glossy foliage composed of large leaflets of a bright green. We have a plant growing into a hedge of Rugosas which are frequently very badly disfigured with red rust, mildew and green fly, but Gerbe Rose seems quite immune from these attacks, and retains its beautiful foliage right through the winter. The flowers are cup-shaped, of a soft clear pink, and deliciously fragrant. They appear early—often in the first week of June—and continue at intervals throughout the summer. During August they are generally very freely produced. Gerbe Rose is not rampant in growth, so is perhaps not best suited for a pergola, but is excellent grown on a pillar or as a hedge or screen.

Christine Wright (Hoopes and Thomas, 1903) has been grown in America for some time, but has only recently been obtainable from English growers. This variety has rather large pink flowers somewhat more than semi-double. They are almost exactly the shade of the Old Pink China, the Monthly Rose, and its scent is very like that of a China Rose. It is a rampant, free-flowering variety beginning to bloom about the middle of June.

Chatillon Rambler (Aug. Nonin, 1913) flowers in closely packed clusters, of a deep shade of pink. The blooms last a long time in good condition, and they are held in a more erect position than those of Dorothy Perkins or Lady Gay, consequently they are easier to arrange in vases. It does not bloom here till well into July.

Writing now of white varieties, White Dorothy Perkins has proved disappointing, inasmuch as its flowers too often come splashed and streaked with pink, and the centre has a blackish tinge which gives it a dirty appearance, but there are now other white Wichuraianas which are worth growing.

Purity (raised in America by Hoopes and Thomas) grows very vigorously up a 10-foot pillar. It has magnificent and abundant glossy green foliage, and appears to be mildew-proof. The flowers are pure white and borne in small trusses, three or four in a truss. They are large, semi-double, and beautiful both in shape and purity of colour, but are not produced quite so freely as is desirable in a climber. Purity is so fiercely armed with large black thorns as to suggest the idea that possibly it may have some Musk Rose in its composition.

Silver Moon (brought out in 1912) is a very lovely almost single white Wichuraiana. The



ROSA, WICHURAIANA CLOTHING A BANK IN THE LATE MR. E. MAWLEY'S GARDEN.

middle of November and up to Christmas there should be an abundant crop of fine Roses.

The other day I saw a particularly picturesque shelter near the roadside, draped in Boussingaultia baselloides and an old-fashioned red Fuchsia with long, pendent buds and flowers. The combination is so unusual and so pretty that it deserves mention. I have never before seen any climber contrast so prettily with the Fuchsia, and both, I think, would thrive in any cold house in England that is well aired in summer.

ROSE MRS. DUNLOP BEST

THIS Hybrid Tea was sent out in the spring of 1916 by Mr. E. J. Hicks. When once seen it cannot fail to charm the enthusiast. In colour it is unique—reddish apricot, flushed with coppery yellow. The buds are long and pointed. The blooms when partly expanded are shapely, and when arranged with their own coppery tinted foliage make an imposing display. It is a strong grower and quite free from mildew. E. M.

certain to be found, and in the larger country gardens hedges and pergolas almost entirely composed of Dorothy Perkins are by no means uncommon. No doubt, if only able or allowed to grow one Wichuraiana, Dorothy Perkins, by her brilliant and abundant blossoming, her hardiness and adaptability to almost every soil and situation, has established her claim to be that one. She is pre-eminently the Wichuraiana for cottage and town gardens; but in any except the most restricted conditions it is a mistake to confine one's self to Dorothy Perkins and her various sports, for there are now many of the hybrid Wichuraianas which in their flowering are at least equally charming, and some with even more beautiful and abundant foliage.

Writing so long ago as 1909, Dr. Williams states that there were then over a hundred varieties, and by 1913 that number was almost doubled. I should like to write a few words here of some of these varieties, choosing not necessarily the best, but those which appear to me very beautiful

flowers are large, and if only there were more of them it would make a most effective climber. The leaves are light green and large, usually with but five leaflets. The petioles and stipules are red, the whole effect being rather that of a Tea Rose than of a Wichuraiana. It is, however, a strong grower and has quickly reached the top of a tall pillar.

Fraulein Octavia Hesse (Hesse, 1911) is another white Wichuraiana which I think quite worth growing. It has flexible pale green stems and light green foliage, and the ivory white flowers, which appear in small trusses, are double and of an unusually pretty shape.

Among yellow Wichuraianas, Alberic Barbier and Gardenia are perhaps deservedly the most popular; but Messrs. Frank Cant and Co.'s Braiswick Charm, which they describe as a Tea Wichuraiana, is worth trying, and certainly has lovely foliage. The plant we have was only planted last spring, and had to be cut down its first year, so naturally we could not have much blossom from it this summer. The buds are orange yellow, and they shade to white as the flowers open. We want a yellow Wichuraiana able to keep its colour as Rayon d'Or does. Possibly Dr. Williams' Emily Gray, which was given a gold medal by the National Rose Society at the July Show at Vincent Square, will prove to be the variety many have been striving to obtain.

To conclude, I should like to recommend three very desirable single varieties.

Ariel (Paul and Son, 1910) has beautiful coppery foliage and stems with old rose-coloured blossoms. Their only fault is that they are very fleeting.

Coquina (Walsh, 1907) is one of the latest to come into flower, and seldom does so before the latter half of July, when it blooms on well into October. It has pretty clusters of small cup-shaped, rosy pink blossoms with white centres, which last a long time on the plant or when cut. Messrs. Rogers and Sons of Southampton showed a new variety at Holland House called Lady Swaythling, which was not unlike Coquina, but if I remember aright has larger flowers showing rather more white.

Evangeline (Walsh, 1907) is so charming a Rose that I should like to see it grown in the cottage and villa gardens as Dorothy Perkins is.

It may not be so showy in the distance as Dorothy Perkins, but it is quite as vigorous, has equally sinuous stems and glossy foliage, which, moreover, has the advantage of being mildew-proof. The single flowers, of good size, are produced very freely in large sprays; they are white tipped with pink, and should the weather be fine when they expand, the sun flushes the petals with rose colour in a most delightful way. Added to its beauty, Evangeline possesses "the potent witchery of smell" denied to many of the ramblers. As, moreover, this scent is diffused into the air, it

would, if universally grown, be a specially pleasant addition to the roadside gardens of our country villages.

WICHURAIANA ROSES IN THE LATE MR. EDWARD MAWLEY'S GARDEN

THERE is a touch of pathos associated with the illustrations on this and the opposite page, for the photographs were taken in Mr. Mawley's garden at Rosebank, Berkhamsted, only a short time



WICHURAIANA ROSE PURITY CLOTHING A TEN-FOOT PILLAR.

before his lamented death. A very pretty corner is depicted in the illustration on the page opposite; the true Rosa wichuraiana is seen creeping over a bank, which it has succeeded in clothing from top to bottom. The trailing shoots, with small white flowers and yellow anthers, are extremely pretty in late summer. Mr. Mawley was very fond of pillar Roses, which he had dotted about here and there among the Rose beds. The variety Purity shown above clothing a ten-foot pole, is one of the best of the white Wichuraianas

PLANTING ROSES

By E. MOLYNEUX.

ONE of the many phases in successful Rose culture is that of early planting in the autumn. When this can be done at the end of October or early in November, fresh roots are made while the soil is warm, and thus the plants become well established by the time new growth commences the following spring. As a rule, deciduous trees do not form fresh roots in the autumn, but the Rose is an exception in this respect.

The preparation of the soil is important. Roses will succeed in any kind of soil, provided it is duly prepared. The most unsuitable of all is a thin soil overlying chalk. Under these natural conditions the foliage quickly loses its chlorophyll, or colouring matter, becoming a sickly hue, followed by weak growth and unsatisfactory blooms. The proper way to improve such soil conditions would be to remove the chalk to a depth of 2 feet, replacing it with chopped turf, stiff garden soil, and half-decayed cow-manure if obtainable. On the score of expense, which would be considerable, I cannot seriously advise its adoption. An alternative method would be to heavily manure the existing soil, and at planting-time add clay or a stiff retentive soil closely approaching clay. After planting, give a mulching of the same material; the winter frost, rain and wind would pulverise the whole, enabling the surface roots to assimilate its properties. A thin mulching of half-decayed horse-manure or Wakeley's Hop Manure early in May would accelerate growth during the summer. Light sandy soil can be treated in a similar manner.

In the case of a stiff loam from 12 inches to 18 inches deep overlying an impervious subsoil, a near approach to clay and impregnated with flint stones, this requires considerable manipulation to bring it into a satisfactory state. It should be trenched quite 3 feet deep to provide free percolation for surplus water from heavy rains, and to render the whole warmer by the admission of air. If the top soil was simply dug over and the hard, pan-like subsoil left undisturbed, the roots would quickly become water-logged and thus hinder freedom of growth. In trenching such soil the top or surface soil should not be placed at the bottom of the trench, as is too often done to save the trouble of having three trenches open at the same time; this is necessary when the surface soil has to be kept in the same position as formerly. As trenching proceeds, add half-decayed manure freely. Such a soil when properly prepared will grow Roses to perfection, especially during a season of short rainfall. Seldom will the plants be infested with mildew, except, of course, in the case of varieties that

are prone to it. Roses cannot thrive where there is stagnant moisture, and, to ensure success, where natural drainage is not present it must be provided, and in no way can it be better supplied than by deep trenching.

The preparation of the soil should precede planting by at least a month where it necessitates deep trenching, to allow of the soil settling down to somewhere near its natural level before planting takes place. Dry weather should be chosen for planting, to prevent the soil kneading too much. The roots should be carefully pruned if long and fibreless, shortening back any unduly long shoots to prevent wind loosening the plant afterwards. About the roots of each plant place a small quantity of prepared compost—decayed leaves, wood-ashes or old potting soil—to induce new roots to more quickly form and grow. Plant sufficiently deep to cover the union between stock and graft, to induce roots to push from above the junction. A mulch with a compost similar to that used about the roots will be an advantage.

ROSES IN YORKSHIRE

TO write of Roses and Rose gardens at a time like the present may seem to some almost a mockery, and yet one feels impelled to stand off and take a long view of things in their right perspective; and when the Secretary of State for War says, "Sing, for the blinds of Britain are not down," it may be forgiven one if he reminds readers of *THE GARDEN* of the place and need for Roses, and of the sunshine that has been taken into our military hospitals this summer by many a rosarian, who has found an additional satisfaction in growing his Roses extra well for this purpose. Here in Yorkshire we were all disappointed by the late season; it seemed as if we should have buds and buds only, the whole summer. In 1915 I cut good Roses on June 8, but this year, even on July 8, I had none as good, and comparatively few out at all. Then everything seemed to wake up, and within a week or so from then the gardens were radiant with an abundance of blooms, which, although they came and went with such rapidity, were all the more charming because of the long waiting. If there is one Rose more than another that has justified its place in the garden during such a cool and showery summer as we began with this year, it is

Mme. Edouard Herriot, which has been with me continuously in bloom, whether wet or fine. The buds have opened out a vivid terra-cotta that has always provided a bright patch of colour in the garden. There must be many thousands

of admirers who will order and reorder this. Another variety that withstood the indifferent weather is

Mevrow Dora van Tets, to which I referred in my notes last year. It is a delightful Rose, and wherever planted will become a favourite.

Mrs. George Norwood.—I have now tried this for two seasons and am quite satisfied that it is worth growing. Its beautiful scent and clean foliage are a recommendation to all, and now that the price is popular it should be more generally planted. While the blooms are not as perfect as those of William Shean, it has

and well formed, are carried erect on stiff stems, and the perfume is delicious.

Iona Herdman.—Many of us will discard Rayon d'Or and plant this beautiful variety. The brightness of its colour is always noted by a visitor to one's garden on seeing it for the first time. It is clear orange flame, paling off somewhat when roasted by the sun, but is a distinct acquisition to the ranks of decorative Roses.

Red-Letter Day.—This is another variety once planted, always grown, a beautiful clean grower, and with me in bloom for several weeks. Long pointed buds, opening out a rich velvety and intense red that lasts for several days. This point is of value in a single Rose. It needs to be planted in clumps, of at least half a dozen to be effective. Although the growth is none too vigorous, it carries its foliage and blooms well off the ground.

Earl of Gosford, a fine dark velvety crimson Rose, has been very good with me this season. It is a vigorous grower and well deserves a place in the garden. **E. WATERS.**



NEW SINGLE ROSE MRS. C. E. SALMON.

THE BOURSALT ROSES

Now that it is the time to plant Roses, it may be well to remind amateurs of the beauty of some of the Boursaults, old garden Roses derived from *Rosa alpina*. The number of good garden kinds, especially those of free and rambling growth, has so greatly increased of late that these old Roses may easily be overlooked; but this should not be, for they have a charm and a character peculiarly their own. Botanists have corrected the more generally known name *alpina* to *pendulina*; as a wild Rose it is a native of the whole European alpine chain, its distribution extending from the Pyrenees to the mountains of Greece. In Nature it is generally a low-growing bush, but the Boursaults of our gardens are hybrids with the China Rose and have assumed a rambling habit. They are easily recognised by their long, reddish-barked rods that are smooth and without prickles; there are only prickles on quite young

growths. The kind that was formerly best known, the Crimson Boursault, is perhaps the least desirable, as the colour is rather unpleasantly rank; but the rosy Mme. Sancey de Parabère, large and half double, is a lovely thing, and the palest pink Blush Boursault is one of the most charming of Roses. Its kind of colour is quite unlike that of any other Rose; palest pink of the clearest and purest possible quality, deepening to a rosy centre. Many of the modern rambling Roses do well on light or even sandy soils, but to have the Boursaults at their best they should be on a good loam, preferably calcareous. It has to be admitted that they have but little or no scent. **G. J.**

Mrs. F. W. Vanderbilt.—This is a Rose that deserves a front place in the garden. A deep orange with a suspicion of apricot, it resembles Lyon, but its habit of growth is far superior, throwing up sturdy shoots which bear finely shaped blooms, held erect. I have had several fit for exhibition, and shall plant more of it.

Edgar M. Burnett.—This I consider a grand new variety, one of my finds this year. It abundantly justifies its description as a greatly improved La France. The blooms are large

growths. The kind that was formerly best known, the Crimson Boursault, is perhaps the least desirable, as the colour is rather unpleasantly rank; but the rosy Mme. Sancey de Parabère, large and half double, is a lovely thing, and the palest pink Blush Boursault is one of the most charming of Roses. Its kind of colour is quite unlike that of any other Rose; palest pink of the clearest and purest possible quality, deepening to a rosy centre. Many of the modern rambling Roses do well on light or even sandy soils, but to have the Boursaults at their best they should be on a good loam, preferably calcareous. It has to be admitted that they have but little or no scent. **G. J.**

FOUR BEAUTIFUL NEW ROSES

BY HERBERT E. MOLYNEUX.

Mrs. C. E. Salmon.—This is a delightful single of a delicate soft warm pink that has been frequently exhibited by its raisers, Messrs. Frank Cant and Co. of Colchester. It was in the summer of 1914 that I picked it out amid a bed of seedling Roses growing in the nurseries under the special care of Mr. Sidney Cant. It has a delicate beauty all its own, due, I think, to the softness of the shade of the pink in its colour scheme. The plant is a good grower, very free flowering, and of a splendid habit; one of those Roses that it is difficult to find a fault with, and one wonders why it did not secure a gold medal when exhibited at the special committee meeting at the Royal Horticultural Society's meeting on July 18 last. Given the fact that single Roses are eligible for gold medals, surely here was a fit subject for the award. I wonder whether its position at the end of a long series of over fifty varieties, coupled with the fact that the judges had already awarded nine gold medals—a record number—accounted for its being only given a certificate of merit. I venture to predict it will become very popular, especially for table decoration, as it can be cut with nice long stems and it grows in triplets—that

is, the centre open flower is accompanied by two buds—the ideal method of growth for this purpose, as no ugly disbudding is necessary, and the flowers are borne upright well above the foliage. I have an idea it is a Cynthia Forde seedling, but I am not sure on that point. It will be distributed as pot plants in June of next year. (See illustration on page 514.)

Nellie Parker.—This Rose is hardly done justice to in the illustration below. It is quite up to exhibition standard, and was one of the few seedling Roses of that character to secure a gold medal at the National Rose Society's show at the Royal Botanic Gardens in June last. It certainly is a Rose that most exhibitors will want. It was raised by Messrs. Hugh Dickson, Limited, of Belfast, and they think very highly of it. From what little I have seen of it, I am inclined to agree with their verdict that it will prove one of the best Roses they have ever sent out. The whole appearance of the flower is very refined and taking, notwithstanding that it owes nothing to its colour (some flowers that could be named, Mme. Edouard Herriot for example, owe everything to their colour); but Nellie Parker

is nothing if not refined, no vulgar display of any description, relying on its beauty of shape for its appeal. The colour is difficult to describe, but it is quite distinct, a pale creamy flesh-tinted white that is very pleasing.

Ulster Gem.—This is another very beautiful single of very dwarf habit that should make an ideal bedding Rose, as there is not a good single of its colour. One welcomes all these large-flowered singles that the raisers have given us during the last twenty years. It must be rather more than that since I first saw them growing in the Irish seedling beds. I lost my heart to the single white since known to fame as Irish Beauty, and I remember saying at the time "That is the most beautiful of all Roses," and I think the class is still entitled to that title, "vulgar editions of the wild Rose" though some (quite erroneously, of course) may consider them. Since then Irish Elegance, Irish Fireflame and Princess Mary have added to their popularity, and this year we have Isobel, Ulster Gem, Queen of the Belgians and Mrs. C. E. Salmon to "carry on." Ulster Gem is a pure single with fine large shell-like petals of a good primrose yellow, and it was raised by Messrs. Hugh Dickson, Limited, of Belfast. It has already passed into commerce. It is a more compact grower than most of its class, and should make a very neat and effective bed.



ROSE NELLIE PARKER.



ROSE ULSTER GEM.

Miss Willmott.—At that memorable meeting on July 18 last, when the Royal Horticultural Society placed the Vincent Square Hall at the disposal of the National Rose Society for the purposes of giving awards to seedling Roses that could not be exhibited at the National Rose Society's show at the Royal Botanic Gardens in June, and when no fewer than fifty-eight new seedlings were staged and nine gold medals were awarded, the Rose under notice was considered by more than one of the experts present to be the most beautiful Rose in the show. That is very high praise, and with certain reservations, nevertheless, one that I am in agreement with. It is a most refined flower, of beautiful shape, delightful colour and, I believe, fragrant. Judging from the plants exhibited, it is an excellent grower of nice habit. The colour is pale lemon, and the outside petals in the bud stage are tinged with pale pink. Without having grown the Rose one is not justified in expressing any opinion. I will therefore confine myself to the hope that Rose Miss Willmott will justify the raiser in giving it the name it bears. (See illustration)

NEW AND RARE PLANTS

AWARDS OF MERIT!

Pelargonium General Joffre.—

One of the Zonal section, said to be a sport from the well-known bedding sort King of Denmark. It is a semi-double variety, salmon scarlet in colour. From Mr. W. H. Robbins, Lewes, Sussex.

Geum Borisii.—Of uncertain hybrid origin, though very suggestive of *Heldreichii* *superba* and *miniatum* influence. The flowers are shapely, of large size—quite the best we have seen in this respect—and of intense orange colour. Shown by Mr. Clarence Elliott, Stevenage, Herts.

Aster Novi-Belgii J. S. Baker.—

Briefly, this may be referred to as a pure white Beauty of Colwall, though the florets are narrower. Semi-double to double and quite pure as shown, it should become exceedingly popular. From Messrs. Baker, Codsall, Wolverhampton.

Nerine Rotherside.—A bold and telling variety of brilliant salmon scarlet tone, possessed of the stature and fine proportions of the best of the *Fothergillii* set. It is very handsome. Shown by Messrs. Herbert Chapman, Limited, Rye.

Aster King of the Belgians.—Obviously of the *Novi-Belgii* set; the mauve-coloured flower-heads are as large as those of *Climax*. It is quite a good addition.

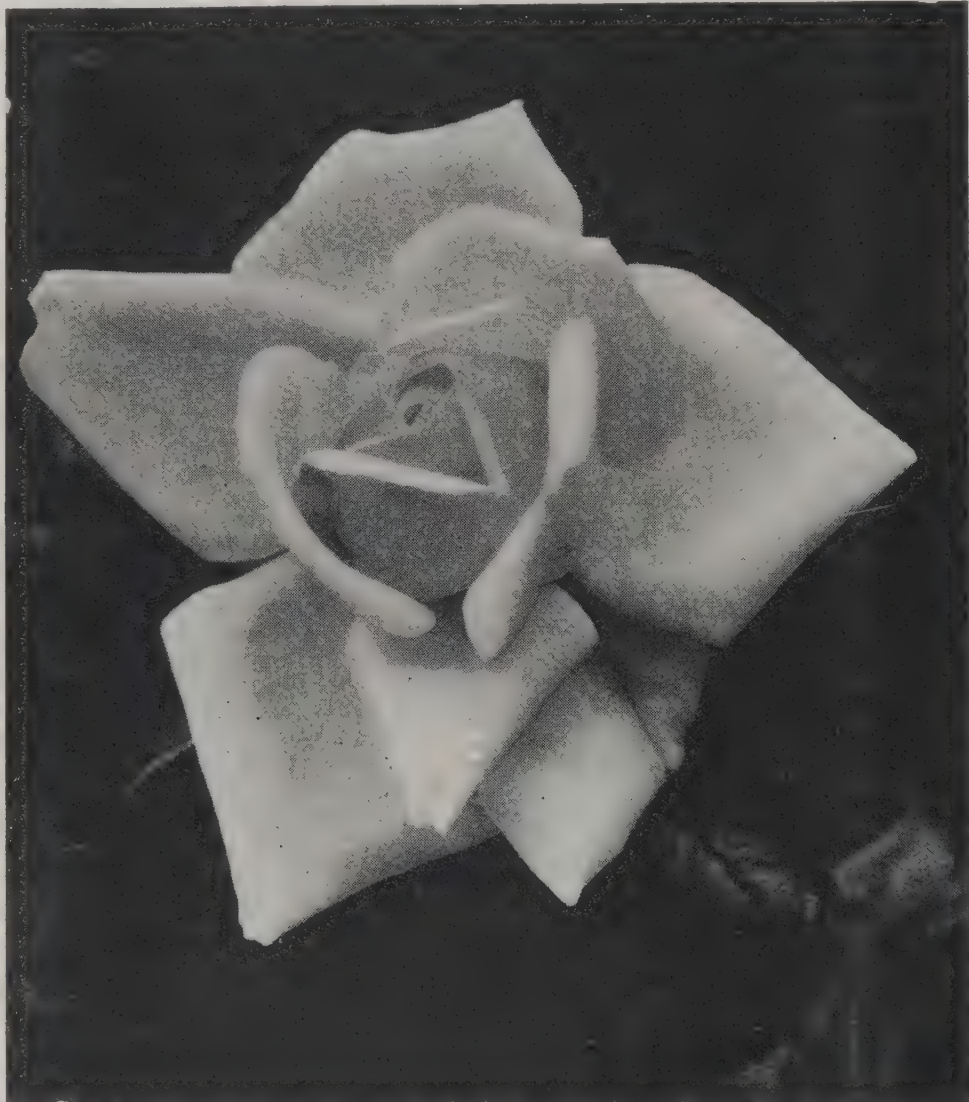
Viburnum dasyanthum.—Fruiting sprays of this only were shown. The fruits (berries) are roundish, of scarlet colour, borne in large terminal clusters. These were shown by the Hon. Vicary Gibbs, Elstree (gardener, Mr. E. Beckett).

Colechicum illyricum superbum.—The name is given provisionally to a distinct and handsome

new Meadow Saffron of rosy lilac tone. We may refer to it again when its name has been decided. Shown by Messrs. Barr and Sons, Covent Garden, W.C.

Chrysanthemum Lichfield Pink.—A handsome decorative sort of good pink colour. Valuable for market work and home use. From Mr. J. W. Thorpe, Lichfield.

Cattleya Venus Orchidhurst Variety (*C. Dowiana* × *C. Iris*).—In this handsome and remarkable hybrid the influence of both parents is clearly seen. The dominant colour of the sepals and petals is golden bronze, the petals, which are large and broadly ovate, having the finely crimped margin touched with gold. The lip, which is of remarkable length, is of rich ruby crimson. Generally the form is that of *Cattleya Iris* in a flower three times its size. A magnificent



ROSE MISS WILLMOTT.

novelty. Shown by Messrs. Armstrong and Brown, Tunbridge Wells.

Sophro - Lælio - Cattleya Lutetia (*Sophro-Lælio-Cattleya Sanghaghii* × *Cattleya Fabia*).—A hybrid of colour warmth and beauty. Sepals and petals reddish purple, the frontal lobe of the lip rich ruby red, with base of golden bronze. Shown by Messrs. Charlesworth and Co., Hayward's Heath.

Odontoglossum Percultum var. Nicator (*O. ardentissimum* × *O. Rolfeæ*).—Only the show card remained. We were informed it is a very handsome and distinct hybrid bearing two spikes of flowers. From E. G. Mocatta, Esq., Woburn Place, Addlestone (gardener, Mr. T. Stevenson).

The foregoing were exhibited before the Royal Horticultural Society on October 10, when the awards were made.

NEW DAHLIAS

Elaine (Collarette).—Crimson and gold, with yellow collar. From Mr. J. T. West, Brentwood.

Anerley Yellow (Pæony-flowered).—A handsome self yellow.

J. A. Jarrett (Pæony-flowered).—The most striking Pæony-flowered novelty of the year. An open flower, the disc hidden by a waved mass of golden florets. The larger florets are revolute, and, curving upwards, are conspicuous by their brick red ends. These two were from Mr. J. A. Jarrett, 184, Anerley Road, S.E.

Autumn Tints (Collarette).—The colour is salmon red, the collar golden. From Messrs. J. Stredwick and Son, St. Leonards-on-Sea.

The foregoing Dahlias, having been adjudicated upon by a joint committee of the Royal Horticultural Society and the National Dahlia Society, carry the award of merit of the former and the first-class certificate of the latter.

COLOURED PLATE

PLATE 1505.

ROSA MOYESII.

OF all the Rose species introduced in recent years, there has been nothing to equal *Rosa Moyesii*. It hails from the mountains of Western China, where it was found growing at an altitude of 7,000 feet to 9,000 feet. The flowers are of a peculiarly rich shade of red, changing their tone of colour under varying conditions. Seen on a bright sunny day the flowers, gleaming like jewels, are of a glorious ruby red; but on a cloudy day the same flowers change to brick red or even a brownish crimson, but always a self colour. It will attain a height of 10 feet, and it is such a free-flowering species that a large bush of it planted on a lawn or in some other open position makes one of the most delightful pictures it is possible to imagine. Apart from the remarkable differences in colour due to illumina-

tion, this species shows a good deal of variation, some of the forms being far more beautiful than others. The flowers are followed by large, Pear-shaped, orange red fruits or hips often as much as 2 inches in length, and it is not bestowing too much praise to say that they are the finest of all Rose hips. It is a thorny and vigorous-growing species, with leaves usually nine or eleven lobed that assume a bronzy tint in autumn. Although introduced by the late firm of Messrs. James Veitch and Sons in 1903, it is only in the last year or two that it has been extensively shown, and this year it received the coveted first-class certificate from the Royal Horticultural Society. Brilliant flowers, pretty foliage and attractive fruits combine to make it a distinct gain to the genus *Rosa* and a most desirable garden plant. No garden is complete without it.

ROSES FROM CHINA

WITHIN the last twenty years a number of distinct and beautiful wild Roses have been introduced from China. For several of these we are indebted to the French missionaries. A considerable number collected by Mr. E. H. Wilson are new and promise to become distinct additions. Among the more recent introductions of Mr. G. Forrest from China, species of *Rosa* are also represented.

While the species of *Rosa* cannot be placed on a level with the hosts of richly coloured and beautiful Hybrid Tea and other garden Roses for extensive planting in the flower garden, in their way a large number are of considerable interest and decorative value for the pleasure grounds and shrubbery borders, and several possess distinctive characters which should prove of value to the hybridist. There is always something to admire in the wild Rose the whole year round, for even in winter, when devoid of leaves, the colour and variety of the thorny stems and branches of the different species are attractive. A lengthy period of flowering cannot be claimed for most of the Chinese species named in these notes, but when in bloom no one can deny that they possess a characteristic grace and beauty all their own. In autumn a number mature abundant crops of highly coloured fruits, for which as decorative bushes they are alone worth planting. Unless seeds can be obtained from isolated bushes, it will be necessary to propagate these wild Chinese Roses by cuttings or layers to retain their distinctive and pleasing characters. Single Roses intercross so freely that it is useless collecting seeds from a border of mixed Rose species.

Rosa corymbulosa was introduced by Mr. E. H. Wilson, and is allied to *R. macrophylla*, a species valued for its handsome clusters of fruits. It is a vigorous-growing bush, bearing in June and July corymbs of pink and white flowers, each three-quarters of an inch to an inch in diameter. At present the small red, globose fruits give this species a distinctive value in the border.

R. floribunda belongs to the Musk Rose section. Under the name of *R. moschata maculata*, Messrs. G. Paul and Son of Cheshunt exhibited sprays of this Rose at a meeting of the Royal Horticultural Society on June 22, 1915. It is a vigorous-growing species, forming large bushes, which will require ample space to spread. The flowers are white, shaded cream at first, with prominent golden yellow anthers, an inch across, deliciously fragrant and borne freely in large clusters during June. Collected by Mr. Wilson in South-West China. *R. Gentiana* is synonymous.

R. Hugonis is one of the most distinct of all the Chinese Roses, and was first introduced by the missionary Peter Hugo some sixteen or seventeen years ago. It forms a large, elegant bush 7 feet or 8 feet high, and more in diameter. The stems and branches are of a reddish hue, frequently with few spines, and gracefully arching. The bright yellow flowers are 2 inches across, and are followed by dark crimson fruits. *R. Hugonis* is one of the first Roses to flower during the second half of May. As a lawn bush this is one of the most attractive species. The elegant foliage and graceful habit combined give a pleasing effect. In general appearance it is rather suggestive of the *R. spinosissima* varieties.

R. Moyesii is a very distinct species introduced by Mr. Wilson in 1903. It is a shrub 5 feet or more in height, with very spiny stems and elegant foliage. The flowers are a very distinct dark vivid red, about $2\frac{1}{2}$ inches across, with petals of considerable substance. The orange red fruits are bottle-shaped, $1\frac{1}{2}$ inches or more long, glandular-hairy, and with large, persistent sepals, and in fruit is a particularly attractive bush. Native of Western China.

R. Fargesii, now illustrated, is a variety or form of *R. Moyesii* and is apparently identical with *R. M. rosea* of Rehder and Wilson. It differs from the type in having pink or rose flowers, and darker red fruits which are much more glandular-hairy.

R. omeiensis may be described as the Chinese representative of the Indian *R. sertata*. It is similar in growth, with the beautiful feathery foliage and the white, four-petalled flowers $1\frac{1}{2}$ inches across. The first blossoms expand in May. The variety *pteracantha*, with richly coloured, enormous spines, is now included under this species, and not as a variety of the Indian *R. sertata*.

R. setipoda is allied to *R. macrophylla*. It was first introduced by Mr. Wilson when collecting in China for Messrs. Veitch in 1904. The plants are vigorous in growth and 6 feet to 8 feet or more in height. The pink flowers are about 2 inches in diameter, freely produced in large corymbs during June and July. The fruits are deep red, ovoid or bottle-shaped, with persistent sepals.

R. Soulieana is distinct in habit and very vigorous in growth. Developing strong young shoots 12 feet to 15 feet or more in one season, this Chinese Rose forms in time very large bushes. In the pleasure grounds and on the border of the woodland, or in the shrubbery borders of public parks, where impenetrable masses of growth are useful, Père Soulie's Rose can be strongly recommended. It is always attractive. Copiously armed with pale green spines, the bushes are ornamental when leafless, while from spring to autumn the grey-green hue of the foliage is most effective. Towards the end of June and during July the creamy white flowers, $1\frac{1}{2}$ inches across,



A FRUITING SPRAY OF ROSA FARGESII.

The most distinct character of the type bush are the bicolor, Pear-shaped fruits, red with a yellow base, up to an inch long. Others differ in having an all-red fruit. Introduced by Mr. E. H. Wilson.

R. sertata rather resembles the Himalayan *R. webbiana*, and for garden decoration promises to be even more attractive. It forms a large, graceful shrub of rounded habit 4 feet to 6 feet in height. The glaucous stems and grey-green foliage are very pleasing. When to these are added in June and early July a profusion of dainty rose-coloured blooms, the picture is complete. In autumn numbers of dark red, ovoid fruits, three-quarters of an inch long, with persistent sepals, add to the decorative value of *R. sertata*. A native of Central China, this species was introduced by Mr. E. H. Wilson and also by the French missionaries. Curiously enough, plants from the two sources flowered together at Kew for the first time in June, 1910.

are freely produced in branched corymbs. The number of flowers in each corymb may be judged by counting a spray of fruits at the present time. One selected at random has eighty-two mature orange yellow fruits half an inch long and three-eighths of an inch in diameter. A native of Western China, M. Maurice de Vilmorin first obtained seeds of this Rose in 1896 from a French missionary.

R. Willmottiae is a graceful shrubby species 5 feet to 6 feet or more in height, with elegant foliage and rosy carmine flowers 1 inch to $1\frac{1}{2}$ inches in diameter, freely produced during May and June. The fruits are ovoid, orange red in colour. Discovered by Mr. E. H. Wilson in Western China when collecting for Messrs. Veitch, and named in compliment to Miss Willmott of Warley Place, who has done so much to popularise the species and varieties of wild Roses.

A. O.

A GARDEN OF SINGLE ROSES

WERE space available, what a delightful garden one could make of all single-flowered Roses! I am quite aware that to do them justice many kinds should be planted in masses, but supposing space were practically unlimited, I can conceive of nothing more charming than a Rose garden filled with the many lovely single kinds now available. We all know how effective single Roses are for table decorations, and I daresay Irish Elegance has obtained more honours at the exhibitions than any other Rose used for this purpose. I had the curiosity to run through the lists recently, and was surprised to find there were quite eighty varieties all worth growing. There would be many more if I had counted some species that

Ulster Gem, from Messrs. Hugh Dickson, provides us with a shade much needed—a deep primrose yellow. Here, again, we have size, for the flowers are frequently 6 inches across. The habit, too, is splendid. I have seen it growing at Belmont, and was much impressed by the glorious effect produced.

Queen of the Belgians is another very lovely variety. It is a rich salmon pink, and, being of a dwarf habit, should be most useful.

Princess Mary is a decided acquisition, the colour, brilliant scarlet, supplying a long-felt want.

Cupid is a pillar Rose of fine growth and abundant foliage. Here we have a very taking colour, glowing flesh with a shading of peach. The flowers are very large and produced in clusters, and one can imagine what a fine pillar Rose it will make. Although not perpetual, it cannot fail to be effective in the garden.

Rugosa repens alba.—This is a delightful variety for clothing a sloping bank. It also makes

unpruned. I have *Irish Elegance* on an east wall with growths over 7 feet long, and I do not see why the ordinary *Fireflame* should not grow as vigorously. But for a lofty wall the Climbing *Irish Fireflame* will be grand.

Queen Alexandra is another novelty of a very dainty colouring. If it grows like *Moonlight*, it will be more suitable as a big bush or pillar.

These, then, are some of the very latest novelties. What the future has in store for us no one can predict. I should much like to see one of the colour of *Château de Clos Vougeot*; and one of *Mme. Edouard Herriot* shade would be beautiful.

It may be just as well, in view of future planting, to give some idea of how to form a garden of single Roses. A tall hedge could encircle the enclosure, and for this purpose the following would be admirable: *Silver Moon*, *Jersey Beauty*, *Joseph Billiard*, *American Pillar*, *Hiawatha*, *Evangeline*, *Sweet Lavender*, *Pink Pearl*, *Ariel*, *Polyanthas simplex* and *grandiflora*, *Brunonii*, *Carmine Pillar*, *Miss Florence Mitten*, *Diabolo*, *Delight*, *Milky Way*, *Paradise* and *Paul's Single White*. All of these excepting the last are summer flowering only, although blooming as a collection over a long period.

Inside of this tall hedge I would suggest raised mounds or a sloping bank covered with *Wichuriana alba* and *rubra*, and *Rugosa repens alba*. Weeping standards of some of those already named should be interspersed, and pillars or isolated bushes of the following: *Rosa sinica* *Anemone*, *Mrs. O. G. Orpen*, *Lady Sarah Wilson*, *Lady Curzon*, *Morgenrot*, *Leuchstern*, *Sheilagh Wilson*, *Rosa Moyesii*, *R. Andersonii*, *R. altaica*, *R. Xanthina*, *R. Hugonis*, *R. Luccus*, *Hebe's Lip*, *R. macrantha*, *R. moschata alba*, *R. sertata*, *R. pomifera*, and good bold bushes of the lovely *Penzance Sweet Briars*; hedges or clumps of the common *Sweet Briar*, *Austrian Copper*, *Austrian Yellow*, *Rugosa alba* and *rubra*, *Rugosa Carmen*, and single *Scotch Roses*. We now have left to form beds of a sort such beautiful kinds as the novelties mentioned, supplemented by *Irish Elegance*, *Irish Fireflame*, *Irish Beauty*, *Irish Glory*, *Bardou Job* (not strictly single, but nearly so), *Simplicity*, *Muriel Jamieson*, *Alexandra Zarifi*, *Mrs. Kingsmill*, *Maharajah*, *Irish Pride*, *Irish Modesty*, *Irish Harmony*, *Irish Engineer*, *Irish Brightness*, *Royal Scarlet*, *Papa Hemery* and the beautiful *Polyantha Cyclope*. Perhaps a warm spot could be found for the creeping *Macartney alba simplex*; and should a wall be available, we might try *R. gigantea* and *R. sinica*.

I am fully aware the laying out of such a garden of single Roses in war-time would be an extravagant experiment, but I feel sure the matter is worthy of the consideration of readers of *THE GARDEN*. Certainly whoever attempts it will have a unique rosary, and one in which the charms of single Roses will be enriched by the commingling of all that is beautiful in this type of our national flower.

DANECROFT.

ROSE IONA HERDMAN

THIS is one of the most charming of Roses for decoration; the colour is so pleasing and blends so harmoniously with copper-tinted foliage. In growth it is weak and of a pendulous character, which is all against its general use for decoration, the blooms in many instances necessitating wiring.

E. M.



ROSA RUGOSA REPENS ALBA.

are beautiful to the botanist but somewhat uninteresting to the average Rose-lover.

I know there are many people who do not admire single Roses, but, judging from the novelties announced, our raisers are convinced there is a demand for them. I am glad to find that the novelties possess not only size, but perpetual-flowering habit. Already for this season there are four beautiful novelties, probably the finest of all being Messrs. S. McGredy and Sons'

Isobel, which obtained the gold medal of the National Rose Society. I predict for this Rose a great future. There is an illuminated character about it that appeals to all. The colour is wonderful, a very brilliant carmine red flushed with orange scarlet, with a faint Austrian Copper shading, and the centre of the flower has a pure yellow zone. Fancy a colour like this in a bloom nearly 5 inches across with only five petals of great substance, delightfully fragrant and exceedingly free flowering!

a grand weeping standard, as may be judged by the accompanying illustration of a rather low-spreading standard on the lawn in Mr. E. A. Bowles' garden at Myddelton House, Waltham Cross. So freely are its large starry white flowers produced that it has the effect of a snowstorm in June. Messrs. Paul and Son, Cheshunt, who have long made a feature of this Rose, recommend it to be grown as a half-standard on a 3-foot stem, when its trails of *Rugosa*-like foliage and snowy white blooms are seen to the greatest advantage swinging gracefully in the summer breeze. Grown in this manner and planted about 10 feet or more apart, it makes one of the most effective Rose hedges it is possible to imagine.

Climbing Irish Fireflame should become a great favourite, for one can imagine a wall covered with such a wonderful colour. The ordinary *Fireflame* is a good grower, and I should say would cover a 6-foot wall very quickly if allowed to grow

ROSE MARECHAL NIEL

By GEORGE BUNYARD, V.M.H.

SINCE the "Marshal" was introduced in 1864 we have never had a finer yellow Rose; but it is not often seen in form at shows. The plants on walls are past, and the trees in the open do not flower till the exhibitions are over. It does not make a garden Rose, as the flowers droop on their wiry stalks. The best culture is in a cool house, where it is treated like a Vine. Cut back severely after flowering, and the strongest resultant shoots evenly dispose to ripen, cutting the spray clean away. In the sixties some may recall the sheaves of blooms grown by Messrs. Lane at Berkhamsted in a long corridor and shown in London, and Mr. Thomas Walker of Thame used to set up glorious boxes of blooms.

Mr. Goodwin of The Graperies, Maidstone, still grows the "Marshal" in quantities for market in his Peach-houses, and takes the prizes at the National Rose Society's shows. In the early days there was a difficulty in getting it to flower in a small state, but Messrs. Rivers succeeded in doing so by budding it on established pot plants of Gloire de Dijon. At a cottage I saw a maiden grown on a Briar stem that reached to the roof in one year.

A very successful exhibiting cottager budded a "Marshal" on the Boursault, an old climber, and the growth was grand. At that time Messrs. T. and J. Hollingworth, the owners of the famous Turkey Mill Paper Works, were enthusiastic rosarians, and the cottager's widow wrote them to say how fine her "Marshal" was. So they drove over in their high dog-cart. Tom got down and had a good look and criticism of the blooms, and on returning said, "Jack, the finest Rose I ever saw in my life! Dash it, give the woman half-a-crown." "If that's so," said Jack, "hold the reins and I'll go and see." He was some time gloating over the two long branches of bloom, and came out with a handful. "Hang it, Tom. The finest Roses I ever saw in my life! Give the widow half-a-crown!"

Mr. John was the first Volunteer in the 1st Kent Rifles in 1860. (As he said, he could not be A 1, but he was proud to be 1 A.) It chanced the writer proved to be the best shot and Captain John the next, and he took me to Wimbledon—the first meeting there—and paid all expenses. A motley lot of men lined the wooden path to the rifle fixed for Queen Victoria to fire the first shot—a bullseye—and as the Royal cortège came in view there was no officer to give orders, so I pressed our Captain to do so. In his stentorian voice rang out "Volunt-e-e-ers, shou—shoulder arms; present arms," and we were in order. The only success I had was to stop a short-sighted man from firing at the wrong target where a soldier was blacking the bullseye.

ROSA MUNDI OR VILLAGE MAIDEN

THE beautiful old Rose shown in the accompanying illustration is the Gallican Rosa Mundi, sometimes known as Village Maiden, but most often grown as York and Lancaster. Rosa Mundi is sweetly scented and by far the best of the striped Roses. The flowers are red, striped white. This year it has flowered remarkably well, and in addition to the bushes we have seen flowering in old-world cottage gardens, particularly in Surrey, it has been shown in London and elsewhere in quantity by Mr. George Prince of Oxford. The true York and Lancaster, a variety of Rosa damascena, now very rarely seen, is a poor Rose



ROSA MUNDI, FLOWERS RED STRIPED WHITE.

compared with Rosa Mundi. The flowers of the former are rounded, and the petals striped in pink and white, with occasionally one half the flower pink and the other half white.

TRANSPLANTING PERPETUAL SPINACH

THIS has long been a popular vegetable in Oxford, where the hot, sandy soil makes it almost impossible to gather a dish of the ordinary varieties if sown after the earliest days of spring; in fact, without ample watering, the chances of obtaining anything approaching a satisfactory return from the rows invariably sown between the early Peas are reduced almost to vanishing point;

consequently little besides this perpetual variety, found in most seedsmen's lists under the name of Spinach Beet, is grown.

In addition to the wonderful drought-resisting properties of this and the long succession of large, fleshy leaves which follows, particularly when sown on good ground, it has one other virtue, perhaps not as widely known as it might be, namely, the adaptability of the plant during the early days of its growth to transplantation; yet I have frequently proved that, providing these seedlings are lifted with ordinary care and not too long a period is allowed to elapse between the lifting and the planting, few things suffer less check than these. Growers who during the early days of September sowed seeds in an exposed part

of their garden, and at this time have many surplus plants about 6 inches high, will find it a capital plan to fill any out-of-the-way corners with these instead of throwing them away, for, although no frosts we are likely to get will kill the plants outright, during an exceptionally long period of winter weather we find our plants in the open get a severe shaking up. It is then that these plants which are sheltering beneath trees, bushes or walls prove their usefulness, while others planted in what we term "nursery beds" are easily protected by means of a little hay or dry Bracken.

As the season is not far advanced, the sooner transplanting is got out of hand the better the chances of success will be, and where rain has not recently fallen it will be an advantage to well water the rows a couple of hours before commencing. A good watering to settle the plants in their new quarters is also advisable. The distance between the plants need not be so great as it is usual to allow, 6 inches or 8 inches each way being ample, and picking may commence from the outer leaves a month after planting.

F. R. C.

SEED POTATOES

DOUBTLESS the advice freely circulated by seedsmen early in the new year that a change of seed always pays is often passed over by the suspecting amateur, thinking it a tradesman's dodge

to get rid of his seed Potatoes to inexperienced growers at relatively high prices; but no grower of experience for a moment questions the truth which lies behind the assertion, for, were it otherwise, we should not so often find, as we do in this Potato growing district, local growers on a large scale feeding pigs and poultry on Potatoes of the size usually allowed to be ideal from a planter's point of view, and buying others from growers hundreds of miles away at double the price they themselves are asking for cooking tubers.

With such proof as this, the small grower need not hesitate to invest in the few pecks usually needed to plant his home garden; while others having large families to provide for should be convinced that it is false economy to go on planting

seed from home-saved stock each season, under the impression that by so doing they are acting in the best interest for all concerned.

A great point in favour of seed purchased from a distance, grown upon land of a different nature to that of one's own garden, is that such seed needs a less liberal amount of manure to ensure an average crop. The question which it shall be, Scotch, Irish or Lincoln grown seed, must be determined by the circumstances of the grower, the soil and locality. Speaking for myself, I may add that seed from the last-named district rarely gives us such heavy crops as those from Scotch grown seed; whereas a neighbour, having a chalky soil to deal with, finds the reverse to be the case, Lincoln seed giving good returns the first season; but if seed sets are selected from both crops and again replanted the following season, the honours lie with the Scotch grown seed.

Irish grown seed can always be depended upon to give good returns the first season upon our hot, sandy soil, the haulm invariably showing more vigour than that from tubers obtained elsewhere.

This season an amateur friend told me that he indulged in his favourite hobby, which is to test new varieties of Potatoes, to the extent of six new-comers, all from Scotland, and the crops lifted from Dobbie's Favourite, The Chapman, Erin's Queen and The Provost were in many cases five times as heavy as those from local seed, and previous experience of each of these leaves little room for doubting the truth of the statement.

It is because I am so thoroughly satisfied that a change of seed, so far as the Potato crop is concerned, does really pay that I am writing this note so early after the crop has been harvested, in order that the truth it contains may be impressed upon the minds of readers to whom a good crop of the "noble tuber" means more even than the closest friends are conscious of; and instead of delaying the ordering of his likely requirements in this direction, order early and store under good conditions, *i.e.*, thinly, where light and air reach them, remembering that properly prepared seed sets is the first step towards ensuring a bumper crop next season.

Oxford.

F. R. CASTLE.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

Pears.—Although not so important as the Apple, the Pear is, nevertheless, a very desirable fruit, and in most gardens there are positions where some excellent specimens could be grown. Cordons are largely employed for covering walls and trellises, but pyramids and bushes are also favoured in many gardens. The following is a useful selection: Williams' Bon Chrétien, Marguerite Marillat, Triomphe de Vienne, Beurré Superfin, Louise Bonne of Jersey, Emile d'Heyst, Marie Louise, Conference, Doyenné du Comice, Glou Morceau, Josephine de Malines and Olivier des Serres. Three of the best for baking or stewing are Bellissime d'Hiver, Catillac and Uvedale's St. Germain.

Strawberries.—New plantations made a few weeks ago will require frequent hoeing to keep down the weeds and encourage the plants to grow freely. All runners must be removed, and if dry weather exists it will be advisable to give the roots a good watering.

The Kitchen Garden.

Rhubarb.—The bed should now be gone over and all decayed foliage and weeds removed. If it is intended to force a few roots, they must

be lifted and stored in a cool shed for a few weeks. To secure the best results, slow forcing must be adopted. If the roots are large, no extra soil will be needed when they are placed in a cool Mushroom-house or similar structure. Small roots will need to be embedded in leaf-mould or any old potting compost. Both will require to be kept moist. The permanent bed may be lightly forked over; this will sweeten the soil. Where it is intended to make new beds in the spring, the ground may now be trenched, incorporating a quantity of decayed manure as the work proceeds.

Seakale.—The lower leaves may be removed at this date and the crowns fully exposed to allow them to become thoroughly ripened. Early next month some of the best crowns may be lifted ready for forcing.

The Storehouse.—Such crops as Potatoes, Onions, &c., must be examined whenever an opportunity occurs. A wet day is often chosen for this work.

Brussels Sprouts.—All decayed foliage must be removed from time to time, and the sprouts should be picked when they are fully grown. If this is done and the tops are allowed to remain, the period of production will be prolonged.

The Flower Garden.

Spring Bedding.—It is advisable for such work to be accomplished by the beginning of November, therefore the beds must be cleared, manured and dug over. Wallflowers are most useful and should be planted first, making the soil firm about the roots. Polyanthus are also effective, and, if possible, they may be given a partially shaded position. The colours are much improved by the plants being in a little shade. Aubrietia, Double Arabis, Alyssum, Violas, &c., are all suitable, while I should like to put in a good word for the old London Pride. Bulbs will probably be dispensed with in many gardens, but Tulip La Rêve goes well with the last named. Such plants as Sweet Williams and Canterbury Bells may be planted in the borders or wherever there is a little space.

Plants Under Glass.

Eucharises.—These delightful subjects having been rested, a few plants may be placed in the stove, where they will produce their flowers. When the spikes are seen, alternate waterings with liquid manure will be beneficial.

Clivias (Imantophyllums).—Like the Eucharises these have been resting, and from now onwards must receive more generous treatment. The roots should be top-dressed with rich soil, and when the plants have been cleansed, arrange them in the greenhouse and introduce a few into heat as required.

Fruit Under Glass.

Tomatoes.—Many plants have nearly finished fruiting, and the few remaining bunches of green fruit may be gathered and placed on a shelf to ripen. The plants can then be discarded. Those in full bearing must be well supplied with water and given air on all favourable occasions. Continue to remove all side growths, also a portion of the foliage where it is overcrowded.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Flower Garden.

Herbaceous Plants.—The present is a good time for lifting plants and replanting the herbaceous borders. Before commencing to lift the plants they should be carefully labelled and their approximate heights marked, afterwards removing them to a temporary place and heeling them in while the border is being prepared for replanting. It should be deeply trenched, and a heavy dressing of manure applied as well as some fresh loam, wood-ashes and lime. It may be found necessary to remove entirely some of the exhausted soil to make room for a sufficient quantity of fresh material. If the replanting is in any way extensive, it is a good plan to prepare a chart or plan of the arrangements, which facilitates the work of planting as well as provides a permanent reference in the event of labels being lost or obliterated. When dividing the roots, the best method is to pull them apart, selecting pieces with fresh young growths, instead of merely dividing the old stools

with a spade. In view of fresh plantations being laid out, however, it is a wise plan to have young, fresh stock raised from seeds or cuttings ready in the reserve garden. These give much better results than the division of exhausted plants.

Sweet Peas.—There are various methods recommended for growing these; at any rate, the times and manner of sowing the seeds are somewhat varied. Autumn sowing outdoors is practised in some gardens, principally in the South, as a means of getting flowers in advance of those sown in spring, but the depredations of mice and the rigours of winter render this practice somewhat hazardous. Autumn sowing in pots has been proved to be the most successful way of growing these for exhibition purposes. The seeds should be sown in October and germinated in cold frames, planting out in March. Excellent results are obtained, however, by sowing in January or February in a little heat and hardening off the plants before planting out. Hard-skinned seeds should be chipped to ensure a regular and quick germination. Prepare the ground in autumn where it is intended to grow them. This consists in deep trenching and liberal manuring to both top and bottom spits. A little lime should also be incorporated at the time of trenching, unless this is already present in sufficient quantity. At whatever season the seeds are sown, it is advisable to germinate them in pots or boxes. A great saving of seeds is thus effected.

The Hardy Fruit Garden.

General Work.—Continue to carry out any root-pruning that is necessary, also make the necessary preparation for planting young trees. In most gardens one or two barrow-loads of fresh loam mixed with old lime rubble is of great assistance to newly planted trees. The sites should be carefully marked off and stakes placed in position, so that only the actual planting requires to be done when the trees arrive from the nursery. Be careful to examine the trees on their arrival for signs of canker or American blight. The latter especially has been widely spread over the country by purchases from infested nurseries. It would be well for the prospective planter to ask for a guarantee against this pest, for if once introduced into the fruit garden it is difficult to eradicate.

Storing Fruit.—Daily attention is now required to the gathering and storing of Apples and Pears, as a few days may make all the difference between immature and ripe fruits. Storing too early causes them to shrivel, and if left to hang on the trees too long, a heavy rain or high wind will knock them all down and spoil their keeping properties.

Plants Under Glass.

The Greenhouse.—Some rearrangement in the greenhouse will now be necessary to keep up the display of fresh flowers. Plants going out of flower will in some cases be destroyed; others will be rested for the winter. Cuttings of Zonal Pelargoniums should be taken now for plants to furnish next summer's display. These should be placed singly in small pots and rooted in a Melon-house or similar place. Fuchsias may be wintered under the stage or in a cool pit where they can be kept moderately dry. Last winter I stored these in an unheated house, covered with Bracken and leaves, and they came out in splendid condition.

Chrysanthemums will now provide the principal display for some time to come, supplemented with the later batches of Lilliums, Bouvarlias and Geraniums; and for those who deal in retarded roots and bulbs, no difficulty will be found in keeping up a good supply of cut flowers.

Roses for Forcing.—Plants that require re-potting ought to be attended to now. The compost should be principally loam of a heavy nature, with a fair quantity of bone-meal. A good top-dressing may be all that is required for those where the soil is not too much exhausted. A portion of young plants may be potted up as soon as these are ready to remove from the open ground. Trim back the roots so that they will be easily contained in a 7-inch or 8-inch pot, and shorten the growths to about 15 inches. The pots should be plunged in the open until required for forcing.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

THE GARDEN.

No. 2345.—Vol. LXXX.

OCTOBER 28, 1916.

NOTES OF THE WEEK

THE drastic action of the Board of Agriculture in ordering many thousands of Gooseberry bushes to be destroyed owing to the presence of Gooseberry mildew is open to severe criticism. On another page of this issue a representative of the Board is reported to have said that nothing but prompt burning of the bushes would eradicate the disease. It is in consequence of this mistaken notion that wholesale destruction of the bushes has taken place, and without compensation to the growers. Apparently the Department has not heard that Dr. Horne, the Royal Horticultural Society's mycologist at Wisley, has succeeded in preventing absolutely the infection of the berries in a diseased plantation. The remedy is a simple one, and was referred to on page 511, in last week's issue. If, instead of destroying plantations of Gooseberries at the very time when we can least afford to do so, the Board would offer facilities for the prevention of the spread of the disease by spraying, it would be an important step towards the control of the disease.

Gooseberry Mildew Inspectors.

In some localities the Gooseberry Mildew Inspectors are a greater source of anxiety to the grower than the disease itself. We have lately received complaints about a way inspectors have of visiting gardens without asking the owners if it is convenient to do so. We have also heard of two remote gardens that were free from the disease prior to the visit of inspectors, but are now affected, the natural inference being that the inspectors carried the spores of the disease with them. Three or four years ago a grower in Ireland had about 10,000 bushes destroyed by order of the Department. A few bushes, however, escaped destruction, and are apparently free from the disease to this day.

Carnation Grenadin.—While not daring to compare this plant with the border Carnations, anyone, especially an amateur, who wishes to have a good supply of a bright red Carnation either for garden decoration or for cutting should include Carnation Grenadin among his list of hardy biennials. We have at present a clump of over a hundred plants—all smothered with expanding flower-buds—from a shilling packet of

seed. It should be treated exactly as one would Canterbury Bells.

Rose Katherine Zeimet.—In spite of recent night frosts, this charming and fragrant little Pompon Rose continues to flower with all the freedom of its summer beauty. It is a low-growing Rose admirably suited for beds or as an edging, with masses of small, pure white flowers. We fully agree with the high praise bestowed upon Katherine Zeimet in the National Rose Society's Official Catalogue of Roses, where it is given as

Mrs. Cornish Bowden of Oaklawn, Newton Abbot, who sent home to his mother the first bulbs from South Africa about the year 1900. As is the case with apparently all Nerines, *N. Bowdenii* hybridises freely and, crossed with other species and varieties, is proving a useful parent.

Purple-Leaved Sage.—Now that planting-time has come, it may be well to remind readers of this very good plant for clever use among the flowers of the early year. Its colouring, a quiet grey purple, makes it an admirable accompaniment to any flowers of pink or purple colouring. In the spring garden it is rather largely used in groundwork drifts among and backing Aubrietia, purple Wallflower, and pink and purple Tulips, and in June borders also among any flowers of the same class of colouring. It is a purple-leaved variety of the common Sage.

The Great Ox-eye Daisy (*Chrysanthemum uliginosum*).

—Everyone is acquainted with this autumn flower, for it is seen all over the country, more especially in cottage gardens. It is one of those good-natured plants that comes up smiling every year, no matter how badly it is treated. Yet it pays for a little care, and if given plenty of moisture and a fairly rich soil it makes vigorous growth in summer and gives a wealth of its large white blooms at a time when Michaelmas Daisies are making blue clouds everywhere. It hails from Eastern Europe, and is often referred to as *Pyrethrum uliginosum*. Increasing rapidly, the healthy clumps should be replanted in late autumn or early spring every third or fourth year.

The Perpetual-Flowering Carnation Society.

—The schedule of prizes to be competed for at the society's twenty-first show is now being issued. It is arranged for the show to be held in the Royal Horticultural Hall, Vincent Square, Westminster, on December 6. Application for the schedule should be made to the hon. secretary, Mr. T. A. Weston, Floradale, Orpington. Entries close on November 25.

*** Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.



THE GREAT OX-EYE DAISY IN A DORSET GARDEN.

the best white Polyantha. It requires hard pruning in March.

A Hardy Nerine.—One of the most interesting and showy outdoor flowers at Kew blooming during October is *Nerine Bowdenii*. The bulbs thrive under similar cultural conditions to those given the Belladonna Lily. The plants suggesting this note are growing on a narrow south border at the foot of the wall of one of the Orchid-houses. *N. Bowdenii* is the largest-flowered of the family. The plant is named in compliment to a son of

CORRESPONDENCE

The Editor is not responsible for the opinions expressed by correspondents.)

Dogwood in Western America.—In a former issue of your paper you mention (with illustration) the Dogwood tree as growing in Western America to about 20 feet high. It really grows here sometimes to 60 feet, and is a great ornament to the landscape.—H. D. GREEN-ARMYTAGE, 116, 23rd Street, W., North Vancouver, B.C.

Fuchsia gracilis.—This capital old hardy Fuchsia is one of the pleasantest things in the garden from early September to well on in October. It has a remarkable aspect of cheerfulness, not only from the abundance of the scarlet sepals, but also from the reddish bark of the branches, so that a kind of warm glow is diffused throughout the whole. This is best seen in plants that have grown into oldish bushes, with thick, woody stems. It is worth giving winter protection for some years till the main stems have hardened and can better withstand frost. Now that the days are rapidly shortening and the flower year is nearly over, and many days are wet or stormy, it is a joy to have it to look out upon only a few yards from my study window.—G. J.

Oak Trees in England and Scotland.—While collecting information regarding the old and historic Oaks in this country, I have been impressed by the great preponderance of hollow and diseased trees in England over those in either Scotland or Ireland. A very small percentage of Scotch Oaks are hollow, or have been pollarded. On the other hand, quite 90 per cent. of those in England are hollow and diseased. Now it is reasonable to suppose that pollarding will not only account for the larger size of the majority of English Oaks, but also for their being hollow-stemmed.—A. D. WEBSTER.

The Parentage of Hybrids.—In raising hybrid novelties in flowers, vegetables and fruit, it is astonishing to me that so many hybridists overlook the value and interest that attaches to a recorded pedigree. In a recent conversation at one of the London shows with an eminent grower and exhibitor who is well known to your readers, I was surprised to hear him remark that he kept no record of the pedigrees of his seedlings. He could not be bothered with it; he had no time. Surely it is well worth the little additional bother and time required to keep as careful note as possible of species and varieties used in one's work of hybridising and cross-breeding. In my own case I well know the additional interest that it affords me to do this, and in this little note I trust you will pardon me for urging it upon my contemporaries as almost a supreme duty to themselves and to posterity.—F. H. C.

Pæonia officinalis lobata.—My attention has been drawn to the illustration in your issue of July 10 of this year with the name *Pæonia officinalis lobata*, and I have been requested to say what it is. I should say it certainly does represent the plant which is properly, I believe, grown under that name. The characteristic colour, of course, is not evident, but the almost equally characteristic shell-like appearance of the petals I take to be well represented. My attention has also been drawn to the second paragraph on page 497 of your issue of October 14, in which this plant is said to be a form of *peregrina*. I

could only say that no officinalis form can be confused with any form of *peregrina*. I should perhaps say when alive, because I have long been of the opinion that characters are lost in dry specimens. The species are absolutely distinct, though they were made one, I believe, in a German monograph I received some years ago and cannot now find. *P. officinalis* is so distinct from other species that it well makes a group by itself, and to this *P. lobata*, as cultivated, certainly does belong. *P. officinalis* is characterised by leaves of deep green colour, pale green below, not glaucous, rarely slightly pubescent. The *peregrina* group is contradistinguished by leaves that are glaucous or of very pale green above, generally of striking grey green aspect; the leaflets are glaucous below and rarely without distinct pubescence. The aspect of the two groups, counting officinalis as a group,



THE PURE WHITE FOXGLOVE MISS JEKYLL.

is quite different at a glance, and it is easy to see into which this *P. lobata* of Desfontain must fall. I assume that it is the *P. lobata* of Desfontain, of which I am not at this moment absolutely certain; but whatever it is, it cannot fall into the *peregrina* group. I have referred only to leaf characters because *Pæonia* is very deficient in flower character. Plants that are obviously distinct entities—if I may use the word—and therefore quite distinct as species, can hardly be distinguished by the flowers, and yet the flowers are actually different, though it is not possible to formulate character from them. If there is another *P. officinalis lobata*, I should be very glad of information about it, and it would also be interesting to know more of the rare form of *P. peregrina* with which the well-known *P. lobata* is said to have been identified.—R. IRWIN LYNCH, *Bo'anic Garden, Cambridge*.

Aster versicolor and Boltonia latisquama.—A charming Aster not mentioned in the interesting article on Michaelmas Daisies, issue October 14, page 500, is *A. versicolor*. It is quite distinct from the majority of Michaelmas Daisies, both in its flowers and foliage. The former are white on opening, but turn to rosy pink when they are a day or so old. This gives the pretty effect of both pink and white blooms on the same plant—similar to the effect produced by *Erigeron mucronatus*. Here it generally commences to flower about the first week in October, and unless exceptionally bad weather prevails it is often quite showy in the middle of November. Few, if any, of the late-flowering Asters stand frost and rain so well. I bought the original plant many years ago under the name of *A. gracillimus*, but I now find that in most nurseries it is labelled *A. versicolor*, which I conclude is the correct name. Another plant which is making a lovely show in my herbaceous border at the present time is *Boltonia latisquama*. It is very nearly allied to the Aster family, and for all practical purposes can be treated as one. It produces masses of snow white, Daisy-like flowers of a much more refined character than one finds in the Michaelmas Daisy proper, and in good soil it grows over 6 feet high. The whole appearance of the plant is most graceful. It is excellent for cutting, and is worthy of a place among the choicest of our autumn flowers.—L. BIGG-WITHER, *Birdwood, Wells, Somerset*.

Covering Alpine Plants in Winter.—I should certainly draw the line at covering with glass such things as *Arnebia*, *Saxifraga apiculata*, *Silene acaulis* and *Schizocodon*, mentioned in the article on "Winter Work in the Rock Garden," page 502, issue October 14. It is quite unnecessary, generally. All are perfectly hardy and none woolly leaved. I would as soon think of covering a tuft of *Aubrietia* as the *Silene* named or *Pulmonaria officinalis* as the *Arnebia*. To afford glass covering to *Saxifraga apiculata*—the most precocious-flowering member of its race—would be but to tempt it to flower earlier with worse results probably than are now sometimes experienced. Beautiful, early and free, this good sort occasionally suffers at flowering time from severe frost, and where this occurs special positions should be given it, those not early touched by the sun's rays playing an important part towards nullifying the ill resulting otherwise from a stinging frost. Disfiguring the rock garden with sheets of glass should be discouraged as much as possible, and the far-seeing planter will reduce it to a minimum by affording doubtful or sensitive subjects positions conferring the natural shelter of rock or shrub.—E. H. JENKINS.

Foxgloves for Indoor Decoration.—I beg to send a few photographs of Foxgloves used for indoor decoration. The plants were potted up a few weeks before flowering. The variety Miss Jekyll is of the purest white, and of a habit of growth quite different to that of the common varieties.—I. S. RUS, *Giesegaard Have pr. Kværkeby St., Denmark*.

How to Grow Onions for Keeping.—I have read with much interest the letters in THE GARDEN on this subject by Mr. C. F. Adams and Mr. Clarence Ponting, and as the latter gentleman suggests that the question of autumn versus spring sowing might be further threshed out, I venture to briefly give my own experience in the matter. Let me say at the outset that, unlike Mr. Ponting, I

to not cater for big Onions, but for a good crop of bulbs averaging from 9 inches to 10 inches in circumference, and that will keep till the following March or April. This I am almost invariably successful in producing. I long ago abandoned spring sowing, because the crop was almost annually attacked by the Onion fly. We have clayey loam soil. My practice is to sow Trebons as near the middle of August as possible, and I run the hoe through the crop as soon as germination takes place. This operation is repeated during autumn, and again perhaps twice the following season. I never transplant nowadays, but thin out to about 7 inches or 8 inches apart. The rows are 3 inches apart. This system takes a little more seed, but Trebons is a moderately priced variety, and my experience has been that, no matter how carefully the work of transplanting has been carried out, a considerable proportion of "thick-necks" always result, whereas by the thinning process these are a negligible quantity. I double dig the quarter, and at the same time give a fair dressing of horse and pig manure, mixed. I give a dressing of chicken manure in spring and one of soot in early summer.—CHARLES COMFORT.

Rose Queen Alexandra.—This Rose, which was illustrated in THE GARDEN for October 7, ought never to have been recognised by the National Rose Society under the above name. It was given a certificate of merit in 1915. Those responsible for this award would appear to have rather hallow memories, for a Rose—and a single-flowered one, too—was awarded the gold medal of the society in 1901. This was shown by Messrs. James Veitch, and, according to "Hortus Veitchii," was raised by Seden from Crimson Rambler fertilised with Rosa multiflora simplex. This duplicating of the names of florists' flowers often causes a great deal of confusion, and should be in every way discouraged. It would not be quite so bad if the older kind had dropped out of cultivation, but such is not the case. It is now, I suppose, too late to alter the name of the second Queen Alexandra, but especial care should be taken that such a mistake does not again occur. Botanists are supposed to recognise the priority of a name, and the same rule, even more rigidly enforced, might well be applied to florists' flowers. To some it may appear but a trifling matter; still, to many it is a most important one, especially to those engaged in the trade.—H. P.

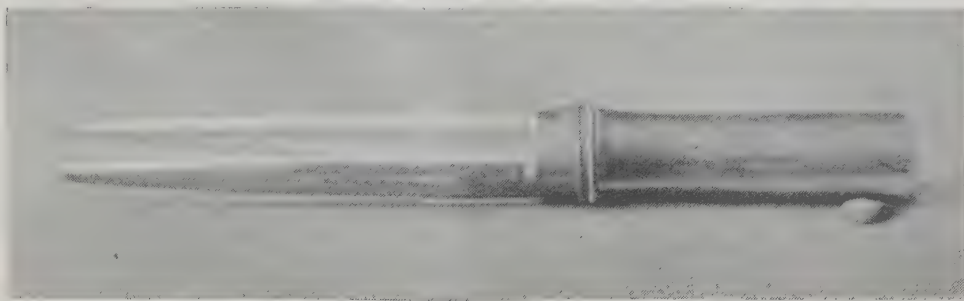
A Home-Made Weeding Tool.—I am sending you with this note a specimen of a home-made weeding-tool which I have found very handy. As

you will see, it is made of a few inches of Bamboo of any suitable size, and forms practically a two-pronged fork and a pair of tweezers. I find it very useful in cleaning my Daffodil beds, particularly Daffodil (or other) seedlings, saving the fingers a good deal of wear and tear; and being of wood it is not so liable to injure the bulbs as a metal tool if it comes in contact with the shoots as they break through the ground. Of course, it is not everlasting, but a season's supply can be made in a few minutes, and they cost nothing.—A. E. G., Auckland, New Zealand.

Colchicum speciosum maximum.—Among the dozen or more distinct known species of Meadow Saffron, *C. speciosum* is an easy first with its large flowers of intense crimson purple. For depth of colour, however, it is eclipsed by the above-named variety, which, one would think, was the *summum bonum* in this direction. I am told, however, that a still deeper shade has been obtained in *C. s. magnificum*, a variety which was exhibited at one of the Royal Horticultural Society's shows two years ago. I wonder whether this variety is in commerce.—CALEDONIA.

Raising Hyacinths.—The question that immediately arises is: Is it worth while to raise Hyacinths from seed when they can be so readily increased from bulblets? Especially is this so when large bulbs are cut and treated as the Dutch treat them. The Hyacinth after being cross cut and allowed to remain on a shelf will yield scores of bulblets, all of which when planted will make flowering bulbs. There is little scope for new colours in the Hyacinth, for this is one of the few flowers that contains the whole gamut of primary colours. In the past it was assumed that no one flower genus could be found with this characteristic. One may find red and blue or red and yellow in one species, but I cannot at the moment recall any other than the Hyacinth which possesses all three true colours. This question of colours found in one genus is interesting, and the fact that the Hyacinth possesses such an enormous range makes it hopeless for anyone to expect that he will gain notoriety in raising Hyacinths from seed.—T. A. W.

Floral Recollections of South Hackney.—I was immensely interested in reading of Queen Mary's recent visit to South Hackney, for my first floral recollection is of a blue Passion Flower which climbed up the front of our home there and hung its mysterious flowers, with their sacred emblems, and its golden fruit around our nursery bedroom windows, which over looked a wall into Loddiges' Gardens. I remember seeing the gardeners there in spring trundling out great tubs of plants (strange to my childish eyes) which I now guess were large Aloes, Palms and tall Dracenas, though then I associated them



A HANDY TOOL FOR WEEDING BEDS OF SEEDLINGS.

with the pictures in missionary magazines given us by a dear old great-aunt. The other South Hackney flowers I can recall were double Dahlias, under an awning in Victoria Park near by. These, even then, I did not admire, and secretly wondered why they took the trouble to cover them over so carefully. There, too, on May Day a Jack-in-the-Green came dancing along the road by our house, surrounded by gaily dressed chimney-sweeps with garlands; and at another season small boys built "grottoes" of oyster-shells and flowers in the street corners, and begged passers-by to "remember the grotto." Both these customs are now, I believe, bygone celebrations, though in country villages in Kent little girls on May Day still carry from house to house "garlands" of crossed hoops bedecked with wild flowers and with a doll dressed in white in the middle, and all covered over with a cloth—evidently a relic of worship of the Virgin Mary, if not of even more ancient times.—ANNE AMATEUR.

Viola gracilis Lord Nelson.—The question of garden adornment is all-important. The garden-lover is ever in search of something a little more striking or more charming in effect. He will find it in *Viola gracilis* Lord Nelson. It has finely erect blossoms of good substance, fair size, beautiful form, and possessed of a gloriously rich violet purple colouring, a tone of colour delightful at all times and shining brilliantly in the sunlight. After a succession of trials in the rock garden, for carpeting under Roses, for mingling with hardy Ferns on half-shady slopes, and as an edging plant to long borders, I determined on its use as a bedding plant pure and simple about a year ago. It was planted in ribbon beds, in conjunction with pink and white Saxifrages, in the autumn of 1915. It commenced to flower in the earliest days of March, 1916, and has continued without a break until now (October 14), and is still crowded with beautiful blossoms. The site is in full sun. At the end of May all the Saxifrages were removed, and the Violas entered into a colour scheme which has proved a delight the whole summer. In conjunction with bronzy red Echeverias, golden-leaved Fuchsias, the dark blue Lobelia Barnard's Perpetual and dot plants of Dracena Cordyline, V. g. Lord Nelson has furnished the framework of the picture of larger beds in which Salmon Paul Crampel Pelargonium and Barnard's Lobelia figure. Four smaller round beds of Cineraria maritima Diamond acted as contrast beds between the salmon and blue of the main beds. With these varying tones of deep salmon, green, gold, blue and bronzy red the intense shining violet purple hues of the hosts of Viola blossoms have blended wonderfully, giving a depth intensity and charm which it is almost impossible to convey by pen and paper. I firmly believe that in the coming days V. g. Lord Nelson will carry its rich colour into every English garden.—P. S. HAYWARD.



FOXGLOVES IN A SITTING-ROOM IN DENMARK.

AUTUMN COLOURING

CLOUR scheming is a point which is worthy of more attention than is usually given when planting shrubs and trees. It is said that gardening is undergoing a rapid and well-deserved change. We are awakening to the fact that more can be done to beautify our gardens by the use of ornamental shrubs and trees. Gardening is really one of the fine arts; but, unlike the painter or sculptor, the gardener has to consider not what his work is now, but what it will grow into ten, twenty and fifty years hence. He has to take into account not the present aspect of his materials, but their capabilities in the future and their respective powers of development. This consideration applies with peculiar force to the planting of trees and shrubs for autumn colouring, for with care and a judicious blending of varieties an effect can be produced which surpasses even the glory of summer flowers. For this purpose a large number of trees, shrubs and climbers are available, delightful in their autumn glory of crimson, scarlet and gold, of which I enumerate a few that on our rather cold, wet soil do remarkably well.

Acer dasycarpum rubrum makes a striking picture when it takes on its golden tint. Of vigorous growth, it is well worth planting among trees as a background to the shrubbery or as an isolated specimen on the lawn. Among other *Acers* well worth growing for their brilliant colouring, mention may be made of the Japanese varieties, with *japonicum* *Osakasuki* probably the most brilliant scarlet of them all. Another beautiful shrub is *Amelanchier Botryapium*, or Service-berry. This most elegant shrub is not met with in our parks and gardens so frequently as its beauty warrants. During springtime it is simply covered with a mass of snowy blossom, while in autumn its foliage turns a fiery red.

Among the *Berberises* we have also some remarkable colouring.

A large group of *B. Thunbergii* in autumn is a sight not readily forgotten. For autumn colouring I consider it the best of this most useful family, while *B. vulgaris* comes next with its red and yellow foliage and brilliant clusters of red berries. The *Azalea pontica* and *mollis* varieties are all worthy of a place, more especially when we remember their sweetness in early summer. *Euonymus atropurpureus* is another shrub not much grown, but well worth a trial. It is, of course, a deciduous variety, but its scarlet foliage among a group of golden Privet has a really wonderful effect, as has also *Prunus Pissardii* when planted in company with the cut-leaved golden Elder.

Among the *Rhus* family there are some fine things, with *R. typhina* perhaps the most striking. This shrub is known to many as the Staghorn Sumach, and is very handsome with its large, Fern-like leaves. *R. cotinoides*, a rare American *Rhus* not often seen, is also fine for grouping. The foliage is similar to that of *R. Cotinus* (the Burning Bush), but the autumn colours assume beautiful shades of crimson suffused with yellow.

In *Liquidambar styraciflua* we have perhaps the most gorgeous of autumn coloured trees, visible at a great distance with its brilliant red, palmate foliage. This tree is partial to a light

of merit is *Vaccinium pennsylvanicum*, which for a dwarf subject with bright colouring can scarcely be surpassed. It produces flowers of a rosy white.

Among climbing plants may be mentioned *Ampelopsis Hoggii*, which differs from the well-known *Veitchii* in its foliage, changing from a bright green to gold. It clings tightly to the wall, and is a variety to be recommended. *Aristolochia Sipho*, with its great yellow leaves, is also deserving of a place; but the glory of autumn on the wall must surely be among the *Vitises*. The variety *Coignetiae* is a noble-foliaged climber, the leaves of which, generally from

9 inches to 12 inches long, are in summer a refreshing green, while in autumn they turn to a diversity of shades from orange yellow to crimson. Another new species is *armata*, the leaves of which are edged with small prickles and have a curious buff shade underneath. This promises to be a most useful addition, as it grows freely and seems extra hardy.

JAMES McGRAN.

Coodham, Kilmarnock.



RHODODENDRON INTRICATUM IN THE BOTANIC GARDEN, CAMBRIDGE.

RHODODENDRON INTRICATUM

BY R. IRWIN LYNCH.

THOUGH not one of the most showy, this is one of the most charming of all the species of *Rhododendron*. It is both remarkable and attractive in the colour of its small flowers, which are violet blue, and even if not really blue, readily suggest that colour. It is an evergreen species, a native of Yunnan, introduced in 1907. In "*Rhododendrons and Azaleas*," by W. Watson, it is described as tender, but for several years it has been quite uninjured in the Cambridge Botanic Garden. It must, however, be admitted that we have had no severe winter by which it could have been fully tested. The specimen seen in the accompanying illustration is about 18 inches high and very twiggy. The leaves are ovate-oblong, obtuse, about half an inch long, dark green above

and glaucous below, with tiny peltate scales on both surfaces. The flowers have a short tube and spreading limb rather more than three-quarters of an inch in diameter. They have the merit—if merit it is—of being produced almost the year round. The flowering season is evidently about the end of February and early in March, when this photograph was taken; but now as I write (early in October) a good many flowers are out, and buds are big with the promise of future display, possibly it may be whenever there is sufficient encouragement of weather. About the end of February last the plant had the protection of a hand-light to prevent its being covered with snow while in bloom.

Quercus coccinea splendens, the true American Scarlet Oak, forms a tree of great beauty, the massive leaves of which with us take on the scarlet tint very late in the season and hang on till the most severe frost comes. Another little shrub

loamy soil rather than to heavy clay, and it thrives best in a sheltered position; but otherwise it is perfectly hardy and should have a place in every collection. Another most brilliant-coloured shrub is *Pyrus arbutifolia*. This is a North American species, and thrives almost anywhere in the poorest of soils. In springtime the Hawthorn-like flowers are produced abundantly, while in autumn the leaves assume the most beautiful shades of scarlet and vermilion.

THE CORSICAN "MAQUIS"

BY W. HERBERT COX.

EXCEPT for the rare patches of cultivation, almost the whole of the Island of Corsica is covered with a dense thicket of shrubs. This thicket is called the "maquis," and, as most of the shrubs are aromatic, the scent is so strong that it is perceptible several miles out at sea. Napoleon said of his birth isle that he could tell when he neared it by the sweet odour.

Rosemary is one of the important maquis shrubs, giving, when in blossom, quite a blue haze to some hillsides. Near Lavasina I saw many bushes with pure white blossoms, a delightful variety I do not remember having seen in cultivation. Myrtle, too, is prevalent. So thick are the berries that in the autumn, when the blackbirds feast on them, the flesh attains a distinctive flavour, which is so delicious that many are potted for export. The Tree Heather (*Erica arborea*) sometimes reaches a height of 10 feet, and in March gives out a wonderfully sweet perfume from its white-blossomed, pink-budded sprays. Vast numbers of its roots are sent to England for making our Briar-wood pipes. Two other Heathers are found, the dull *scoparia* and handsome *stricta*, which is far rarer, being only seen in the high mountains. Perhaps the most important of the maquis shrubs are the Gum Cistuses, which, though putting out a few flowers throughout the year, are a wonderful sight in May. The ephemeral blossoms are everywhere. *Salviaefolius*, like a white wild Rose, is commonest; but the small white *monspeliensis* and *corsicus* (*incanus*), of pinkish colour, very sticky (an island form of the Continental *villosus*, which may also be found in the Luri Valley), are but little less so. *Flicheri*, a hybrid between the first two, also occurs. On the roots grows a beautiful parasite, *Cytinus hypocystis*, a mass of scarlet bracts and starry flowers. Nearly every *salviaefolius* entertains this guest, but far rarer is the form *kermenus*, white-flowered, which makes a host only of *Cistus corsicus*. The Strawberry Trees (*Arbutus Unedo*) look well at every season, but at Christmas, when the red fruits hang amid the white blossoms, they look splendid. *Laurustinus* is so common that it gives a peculiarly bitter flavour to some of the honey, excellent when acquired.

Vast numbers of the Leguminosæ family grow in the bush, from tiny herbs to great shrubs. The most striking of these is *Calycotome spinosa*, a somewhat poisonous though decidedly handsome prickly shrub (a splendid fence), so called from the habit of splitting the calyx and retaining it until ready to open. So common is it that sometimes the hills seem to be painted gold. The hairy form, *villosus*, rare elsewhere, is frequent. Of the Genistas, *scoparius* is so rare that it hardly exists; but an island form of it, *G. corsicus*, which has a few more leaves, is abundant everywhere. *G. Lobelii* forms rounded cushions which look just right for sitting upon, but are, oh, so prickly! It correctly belongs to the hill flora, but may be found in river sand sometimes at sea-level, as in the Fango Valley behind Bastia. The Bladder Senna (*Colutea arborescens*) is distinctly rare; so, too, is the delightful Jove's-beard (*Anthyllis Barba-Jovis*). There are four varieties of *Coronilla*, but none is common. *Cytisus*

triflorus, with its hanging seed-pods, is to be seen, while the small-flowered *C. candicans* (*monspessulanus*) forms three sub-varieties. *Psoralea bituminosa* must not be omitted. Our Gorse is frequent, but only in the mountains; so, too, is our Broom, also the Spanish Broom (*Spartium junceum*).

In the maquis several foreigners, having escaped from cultivation, are so much at home that they give quite a character to the scenery of the coast. The American Agave sends up its tall spires of blossoms. The rods, when dead, are said by the Corsicans to be good for stropping razors. The common Prickly Pear (*Opuntia vulgaris*) is ubiquitous, as any piece knocked down flat by munching goats will grow. The far more thorny, though shorter, *O. Tuna* is frequent,

their cost when they used the twigs as skewers for their meat.

Occasionally the maquis gives place to woodland. In the highest mountains the tree is *Pinus Laricio*, some of which are 130 feet high. Lower down is the region of the Sweet Chestnut, such a useful tree to the people. Nearer the sea-level are groves of Cork Oak (*Quercus Suber*), which are frequently peeled, or the sombre *Ilex*. Another pretty tree, albeit a deciduous one, is the Flowering or Manna Ash (*Fraxinus Ornus*), which hangs down cream clusters of blossom from the fresh green leaves in late April.

Many another shrub is native to this maquis. The strange square-spiked Lavender (*Lavandula Stœchas*), the Lentisk (*Pistacia Lentiscus*) with its rusty inflorescence, the flat-leaved *Daphne Gnidium*, the *Phillyreas* with their tiny flowers, *latifolia*, *media* and *angustifolia*, the Prickly Cedar (*Juniperus Oxycedrus*) and our own Hawthorn are all happy. Who is cooking curry? No one; it is only the odour from the yellow flowerets of *Helichrysum Stœchas*. The delightful,



ROADSIDE VEGETATION ON CAPE CORSE.

especially about Ajaccio, for an attempt, not very successful, was made to cultivate the cochineal insect on the island. The Scarlet Aloe sometimes escapes, also a smaller yellow-flowered kind with marbled leaves. *Mesembryanthemums* of various sorts are quite at home rambling over rocky cliffs.

Sometimes one shrub seems to have acquired the monopoly of one tract of land, sometimes another. I remember, in the Valley of Rocks above Pietranera, how the rare and lovely *Lavatera triloba* dominated the sides of a rushing streamlet. Some of the shrubs must have been quite old, for they grew 10 feet high in the gorge, and when covered with their lavender pink blossoms were decidedly striking. In another place, a damp spot near St. Florent where the gorgeous bee-eaters fly, Oleanders were in possession. There the delightful pink blossoms looked charming. They are called "I Mazzi di San Giuseppe" (St. Joseph's Bouquets), though they flower nearer St. John's Day. Few realise how poisonous these beauties are, as Nelson's marines learnt to

low-growing *Rosa Seraphini* (recently recommended in THE GARDEN) is quite characteristic on mountainous heaths, though not entirely Corsican. White *Amelanchier vulgaris*, so beautiful each spring at Kew, occasionally appears. *Sorbus domestica*, suggestive of a Mountain Ash, is often in odd corners of vineyards. Fig trees appear to be really wild, though scientific botanists state that they originally came from the East.

The shrubs at times form an almost impenetrable thicket, for, besides so many being prickly, they are frequently bound together with *Asparagus acutifolius*, which the Corsicans prefer to the garden kind; *Smilax aspera*, better known as Sarsaparilla, with bunches of red berries and handsome, arrow-shaped leaves; Blackberries and Honey-suckle. To this tangle three Clematises, the winter-flowering *cirrhusa* (*balearica* of Persoon), with cream-coloured flowers, downy outside but smooth within; our Traveller's Joy (*C. Vitalba*), called by the French "Herbe aux gueux"; and the sweet-scented Virgin's Bower (*C. Flammula*) add greater difficulty to the Rambler.

TIARELLA CORDIFOLIA

ALTHOUGH the Foam Flower, as the subject of this note is popularly called, is one of our "oldest inhabitants," it is but rarely that we come across it in modern gardens. Is this because it is too cheap, I wonder; because the modest fourpence asked for a clump suggests that it possesses an evil reputation, or that it is lacking in charm or distinction? The answer to such questions must be in the negative, for *Tiarella cordifolia* has many good points, at any rate enough to cover its sins, if it has any.

Its primary charm, as its English name suggests, is its multitude of tiny flowers, which cover the plant with a milky whiteness from April to June. When growing in its native soil—the glens of the Canadian Rockies—its large, heart-shaped leaves often carpet wide areas with a dense growth of dappled green. But when the flowers appear, as they do quickly, they look at a little distance as if a drift of snow had been forgotten by the returning sun. *T. cordifolia* is a good rockwork

weather and soil. It is as hardy as any London Pride. Spring planting (March to April) is usually recommended, but while this is not at all an essential to success, the adaptability of the plant to such late treatment is a feature in its favour as a carpenter for bulbs.

There is another *Tiarella* now listed by some nurserymen, viz., *T. unifoliata*. This is said to be a giant form of *T. cordifolia* and to possess bright red stamens, but what the history of its origin may be I do not know. A. T. JOHNSON.

NARCISSI IN HERBACEOUS BORDERS

THE use of Narcissi among herbaceous subjects adds a special feature to the garden during the months of March and April, at a time when the ordinary border occupants do not give much blossom, except along the front margin, where perhaps alpine plants are largely employed.

not be disturbed for several years. I need hardly say that care must be taken when forking over the borders in the spring not to unduly interfere with the bulbs. As a rule, herbaceous borders are replanted, or in some cases renovated or rearranged, about every five or six years; some subjects become unpopular, or ideas of improvements in various ways are obtained. For these reasons the border needs rearranging. This affords an opportunity to divide and replant the bulb clumps, as they will by this time have increased considerably. It is surprising how many years the bulbs will continue to flourish in the same site without disturbing them, especially if the soil is somewhat stiff in character and deep, having first been deeply trenched and manured. When the Narcissi obtain natural drainage they seldom fail to succeed. In soil where the subsoil is of an impervious character, the roots are liable to become waterlogged. This is too often the cause of failure.

As to the varieties of Narcissi, this is quite a matter for those interested. Strong-growing sorts like Golden Spur, Emperor, Sir Watkin, Mme. de Graaff, Victoria, *Horsefieldii* and others are desirable.

Swanmore.

E. MOLYNEUX.

CAMPANULAS

Potting Plants for Next Year.—For the conservatory, the greenhouse and the entrance porch there are few flowering plants more easily grown and suitable. Whether as individual plants or mixed in a group of miscellaneous subjects, the Campanulas are equally effective. The present is a good time for placing the plants in pots. They make long tap roots if left long in the borders undisturbed, and then it is a more difficult matter to get the plants established in the pots. Fibrous roots must be encouraged to grow, and they are produced in great numbers when the plants are grown in the pots from a young state.

At first place them in 3-inch pots, and if any of the tap roots are long, twist them. Do not break off these roots, as when preserved they promote the growth of very strong flower-spikes. Use a compost as follows: Fibrous loam and leaf-soil in equal proportions, with one peck of rotted manure and a 7-inch potful of old mortar rubble to each bushel of the first two ingredients. Of course, some sand must also be added. Before the small pots are filled with roots, repot the plants so as to prevent a check to growth. The growth will not be perceptible in the formation of flower-spikes (as the latter will not appear until next year), but in the leaves, the stems and the swelling of the crowns of the plants. For the final potting use 6½-inch, 7½-inch and 9-inch pots, the latter for the very large plants or for three of the medium-sized ones. Keep the plants in a cool, well-ventilated frame, and water with care. They are hardy, but when grown in pots they must not be subjected to frosts, else the pots may be cracked owing to the swelling of the soil in them. In due time the flower-stems will appear, and then feeding may be commenced.

Varieties to Grow in Pots.—*Campanula pyramidalis* (blue) and *C. p. alba* (white) must have the place of honour. *C. persicifolia alba* (white), *C. carpatica* (blue) and *C. c. alba* (white) should also be favoured. Early staking is advisable, as the plants are so easily broken off level with the soil.

B.



THE FOAM FLOWER (*TIARELLA CORDIFOLIA*).

subject, as it does not grow more than 6 inches to 8 inches high. Though not at all fastidious, it should be given a soil of sandy peat, well drained, and an aspect in which it will be screened from the midday sun. In a word, if you remember that it is a Saxifrage and treat it as you would one of its Mossy relations, it will not complain.

The Foam Flower is also an admirable edging plant and one that may be used with very pleasing results in carpeting the later bulbs and other spring bedders. In this sphere it affords a delightful change from the eternal *Arabis* and *Forget-me-not*. As a pot plant in the greenhouse it is said to force and do well either by itself or in company with bulbs and other early bloomers. Propagation is easily effected either by division or by the little summer runners, which are sometimes produced rather too abundantly in favourable

While such subjects as Phloxes, Michaelmas Daisies, *Helianthus*, &c., in the middle and at the back of the border are making their first growth, it has a bare appearance. The introduction of Narcissi among these subjects, planted quite up to the back of the border, even though it be 12 feet wide, makes an interesting and useful addition. Not only is the appearance of the border much improved, but the blossoms are useful for cutting.

Some persons may think the thick growth of the herbaceous plants will be detrimental to the bulbs, but this is not so, because before this happens the foliage of the Narcissi will have ripened off. Subsequent success is not then impaired.

After planting the bulbs separately in October about 1 foot apart, in clumps, according to the space between the permanent subjects, they need

NOTES FROM MYDDELTON HOUSE GARDEN

BY E. A. BOWLES, M.A., F.L.S.

IN spite of rough windy days and lashing rainstorms *Crocus speciosus* in its many varieties has been the feature of the garden for the past ten days. The shortest spell of sunshine is enough to open its tightly furled, narrow buds into goblets of a wonderfully blue shade of purple. It is more cup-shaped than other Crocuses when fully expanded and, except in a few well-marked forms with long and narrow segments, seldom opens into a star-shaped flower. The deeper-coloured and bluer forms are the more globular in outline, and the pure white, and some very large forms with outer segments of pale grey tinged with lilac, are the most starry of all. Somewhere and at some time this large form was called variety *Aitchisonii*, but I have never been able to find a description of it or its native locality. The name suggests the most Eastern ranges of the plant's distribution, as most plants named after Aitchison are from the Afghan frontier, and the most Eastern record we have for *Crocus speciosus* is Astrabad, just south of the Caspian Sea. It is a mysterious plant in other ways, and though the first roots I ever had of it, one of Mr. Elwes' kind gifts, seldom flower before the greater number of the darker forms are over, I find seedlings approaching it in colour and equalling it in size now and again among those raised from other forms, and flowering as early as any.

In the sketch I have made to accompany these notes the foremost flower and buds are drawn from the ordinary type, in which the bases of the segments are deep reddish purple, and the outer segments are so much freckled and streaked with minute lines of purple that at a distance they appear to be a rich violet. Internally they are so richly feathered with a purple that is almost blue, that when a large clump opens its many flowers to the sunlight the colour effect is bluer in tone than the bluest forms of *Aster Amellus*. This richness of blue gives *C. speciosus* its great value in the autumnal flower-beds, for whether rising out of a carpet of fallen leaves of many shades of bronze and orange, or from the bare brown earth, the effect is wonderfully pleasing. Again, as a groundwork under autumn-tinted shrubs, or among brightly coloured flowers, the drifts of blue are unlike any other effect produced at any season. One of the easiest to grow, and certainly the freest of all Crocuses in its dual method of increase, by seeds and bulbils, it can be allowed to spread about in the borders, and year by year there should be an increase of its colonies. Even digging does not kill them, and they do not mind how deeply they get buried, and after a year or so reappear as vigorous as ever.

Yet one seldom sees this cheap and hardy *Crocus* taking its due place in the garden in October.

VARIETIES OF *CROCUS SPECIOSUS*

(From a drawing on October 5 by
E. A. Bowles.)

Perhaps it is because it is necessary to plant it no later than August, and therefore before most people think of buying their bulbs. Let me suggest the selection now at once of a place in the garden that would

look the better for a carpet of its blue flowers, and sending an order for a hundred or so of its corms to one of the many nurserymen who have large stocks of it.

The three large flowers at the back of the sketch are drawn from three different forms. The widely opened flower is the one I had from Mr. Elwes and which we call *Aitchisonii*; the

right-hand, light-coloured bud is one of the seedling forms, quite as large but rather different in colouring. These are the largest of all autumnal Crocuses, the segments being very nearly 3 inches in length. The centre and tallest flower is a form Messrs. van Tubergen had collected for them, and which they call var. *Artabir* from its native home. It is in the way of the larger variety, but more freckled, a more robust grower, earlier to flower, and one of the most beautiful of all when fully open; but to my mind these larger and paler forms are not so valuable in a mass as the old one, which is so richly coloured both inside and out.

The *Colchicum* from Salonika I wrote of a month ago has now sent up several flowers, and is not, as I then thought, *C. Sibthorpii*, but may be the mysterious species from Epirus that is only known to us through a manuscript note of Dean Herbert's, in which he described it and named it *C. pulchrum*. It is beautifully chequered with crimson on a pale pink ground, and quite distinct in shape from any other chequered species in our gardens, not so rounded as *Sibthorpii*, and raised on a taller perianth tube than in *Agrippinum* and *variegatum*.

I was noticing this evening how wonderfully the pink shades of lilac are improved in the fading light following sunset. All the *Colchicums* glow out as if they had rose-coloured lime-light turned on to them, and lose so much of their blueness that they look as purely pink as *Belladonna Lilies*. That always lovely *Aster*, *St. Egwin*, also picks up whatever red rays are left and is worth watching till the light goes; and to-night a rather wild tangle of *Anemone japonica* *Queen Charlotte* was standing out against a grouping of dwarf conifers and other evergreens at the lower end of the rock garden, so that each flower looked like a large glow-worm whose light had turned pink instead of green. The most brilliant thing of all was a pot of the old succulent plant *Crassula* (but better known as *Rochea*) *falcata*. Its small flowers are so closely packed in the flat heads that they make one solid mass of purest scarlet,

dotted over with golden anthers. We stand our pots of it out for the summer, and if the blossoms appear early enough, in the days of full-blooded sunlight, this magnificent blaze of colour is our reward.

There is a fine tall *Helianthus* that I am fond of, first, because it was given me by Dr. Lowe of Wimbledon and reminds me of happy days in



his beautiful garden; secondly, because it is one of the last of the Sunflowers to come into flower and remains in beauty after most of them are waning; and thirdly, because it has such a beautiful stem. This is almost black, but has just enough of purple in it to make it glowing and living in general effect, instead of cold and uninteresting like black paint or boots. It has a tall, stiff habit, and small, well-shaped flowers of a delightfully pale yellow with a touch of green in it. Dr. Lowe taught me to call it *Helianthus laetiflorus*, but it is sometimes reckoned as a varietal form of the Jerusalem Artichoke, *H. tuberosus*. In spite of small, fleshy tubers on its roots, I never feel satisfied with that view, and like to believe it the *H. laetiflorus* of Persoon. Anyway, it is a good plant and not enough grown.

Two plants now in flower occasionally delight my nose with whiffs of fragrance, but are disappointing in that often, when I go near to smell them they give out quite different and offensive odours. One is *Eupatorium Weinmannianum*, just now a soft cloud of flesh white flower-heads. As one passes it one suddenly meets with a delicious incense-like scent, very much like that from some of the *Cistus*. But often if I stop to enjoy it,



SPARASSIS CRISPA DUG OUT OF A BANK FOR EXAMINATION.

it goes, borne away on the breeze, and if I touch or bruise a leaf it gives out a strong and unpleasant scent that makes me think of beetles, while the flowers themselves smell like Hawthorn, which is another way of saying, of fish shops. Yet the butterflies love it and come to it as freely as to *Sedum spectabile*, so they can evidently detect honey in its varying moods of fragrance. *Cestrum Parqui* is the other deceiver, a tall, semi-woody plant with rather coarse leaves reminding one of those of the Peach, and drooping bunches of dull greenish yellow flowers. Now and then I have found these flowers very fragrant and giving out a Jasmine and *Narcissus Tazetta* blend of odour that was well worth inhaling, but at other times they smell of something poisonous that I cannot quite recognise, a rank odour something like bruised Ivy leaves. The leaves of this *Cestrum* when bruised smell very strongly of the peculiar odour that gives the specific name to the Gladwin, *Iris foetidissima*, and to *Clerodendron foetidum*, and which some folk declare is like roast beef. But though this nasty scent comes out strongly if its leaves are bruised, it is not the unpleasant one that sometimes possesses the flowers like some evil spirit in place of their rightful perfume.

SPARASSIS CRISPA

BY GERTRUDE JEKYLL.

FOR many years this curious fungus has grown in a part of my ground where there are Scots Pines. To an ordinary observer, at a few yards distance, it has exactly the appearance of a large bath sponge, only rather lighter and brighter in colour. Hitherto my chief interest in mycology had been to know and make use of the best known edible species, and I had often wondered whether this curious thing had any kitchen value. I could not find it described in the only fungus books I had, viz., Cooke's "British Fungi" and Badham's "Esculent Funguses of England," and it was therefore, perhaps, a rash experiment to test it as an edible kind; but it looked and smelt inviting, and a trial was made. It proved to be harmless, but not interesting enough to be worth noting as a good table kind.

From the general appearance I had thought that it might be related to *Morel*, but wishing to be better informed, a helpful answer to an enquiry

To our knowledge it had appeared yearly in the same bank for eighteen years; whether or not in exactly the same position I could not say. The main ball of mycelium was put back in the place from which it was taken, and the detached pieces also planted in the bank; for though it may be harmful to the Pines, yet it is so curious and interesting that I am glad to have it as a point of yearly interest in the woody part of the ground, and hope that it may appear again. It is not infrequent under Scots Pines on the Vectian Sands in this district (the extreme south-west of Surrey and adjoining part of Hampshire), but a much rarer species, *S. laminosa*, has been found on several occasions in Woolmer Forest. This is an even larger fungus of something the same character, but of a more flaky or leafy structure.

Mr. Swanton has kindly furnished me with the following notes on the classification of *Sparassis*: "In 'Fungi and How to Know Them' I have placed *Sparassis* in the family *Clavariæ*. But it has been recently noted that the hymenium is confined to the lower surface of the lobes and not spread over the entire sporophore. At the present time many mycologists hold, for the above and other reasons, that *Sparassis* should be placed in the family *Thelephoræ*. Mr. A. D. Cotton, F.L.S. (President of the British Mycological Society), in a paper 'On the Structure and Systematic Position of *Sparassis*' (see *Trans. Brit. Mycol. Soc.*, Vol. III., p. 333), remarks that:

"If *Sparassis* is to be placed in the *Thelephoræ* it will be located near *Stereum* or *Thelephora*. On examining these genera we find, in the *Merisma* section of *Thelephora*, sporophores which in form somewhat resemble *Sparassis*, and a few of the more erect-growing species are partly amphigenous; the plants are mostly coriaceous, dark-coloured, and the hymenium surface is rough or warted, with coloured or hyaline spores; many are terrestrial, but others grow on wood. In *Stereum* the sporophore is resupinate or reflexed, though in the Tropics merismoid and central stemmed forms are found. They occur on wood and are usually coriaceous; the hymenium is smooth and bears small hyaline spores. On the whole, *Sparassis* appears to be more nearly allied to *Stereum*, the even hymenium being an important character. The relationship, however, is not very close, but there is no reason why it should not be placed in the same family."

"It is of interest to note that the genus *Stereum* contains many well-known destructive parasites, e.g., *Stereum hirsutum* and *Stereum purpureum*. Though we failed to obtain direct evidence in your specimen of parasitism in *Sparassis*, it is quite possible that strands of mycelium may have been associated with a deeply buried root. I think we shall eventually prove beyond doubt that both *Sparassis crispa* and *S. laminosa* are parasitical upon the roots of Scots Pines."

RUMEX FLEXUOSUS

THE Docks do not receive much attention by cultivators, although they are sometimes represented in waterside gardens. *Rumex flexuosus*, for which we are indebted to New Zealand, is, however, quite a unique little plant, and is well worth a place in the rock garden or in the front of the herbaceous border. It has quite narrow, serrated leaves of rich bronze, the inflorescence being of a similar shade. It only grows from 9 inches to 12 inches high. C. C.

in THE GARDEN referred me to Mr. E. W. Swanton's book, "Fungi and How to Know Them." I ventured to write to the author, and not only received a ready answer, but the further benefit of a visit. Mr. Swanton wished to examine the root, and as the example was favourably placed, growing horizontally out of a hedge bank, it was not a difficult matter to dig it out. The part above ground was a roughly roundish mass, 13 inches across at the widest diameter and standing 7 inches out of the ground. The underground stem was 6½ inches long and 1½ inches thick, ending in a ball or clod of mycelium closely compacted with fine sand, blackish in colour and with a strong, rank smell. This ball was not got out quite whole, but from what came out with the stem and some pieces that were cut off by the trowel and a portion that would have been left in the ground, one may conclude that it would have measured about 5 inches all ways.

A curious thing about this fungus is its long duration, for whereas most large fungi of the softer kinds have an existence of a few days only, this one had remained for seven weeks, and possibly more, in an apparently perfect condition.

THE ROSES OF AUTUMN

WHEN the old herbalist, Gerarde, in 1560, penned his notes about the Rose, allotting to it "the chiefest and most principall place among all flowers whatsoever," he was undoubtedly basing his remarks on the flowers of summer, Roses that blow in June, because at that time autumn Roses were non-existent. An odd bloom or two, to be regarded more in the nature of freaks than from any other standpoint, may have graced the autumn gardens of those far-off days, but the Rose then was truly a fugacious flower of summer. Indeed, it is only during the last two decades, since the introduction of the race known as Hybrid Teas, that we have been able to look upon an autumn display as a legitimate toll to exact from our Rose bushes. Now that hybridists are intercrossing the almost perpetually flowering China Roses with the Hybrid Teas and Teas, we may soon expect a number of Roses that will flower over at least six months of the year.

In years to come the Rose is undoubtedly destined to play a very important part in the embellishment of our gardens. The tendency to-day is towards those varieties which are classed as garden Roses, those with flowers of moderate fulness only, and which can be relied upon to open easily, no matter what the weather may be, together with freedom of flowering, vigorous habit and a tendency to give a second display of blooms in September and the early days of October. For the writer, and doubtless for many others, the Roses of autumn possess a peculiar charm of their own. In the heyday of summer, when the pageant of Flora is at its height, there are so many flowers of graceful contour and sweet loveliness that it is difficult to give to the Rose all the praise that its merits demand; but in the waning days of the year we can appreciate to the full the queen of the garden in her many forms of regal beauty and sweetness.

Some varieties of Roses, too, develop charming features in autumn that we may look for in vain during the scorching days of midsummer. Examine, for instance, at the present time a bloom of the old Gloire de Dijon—there is sure to be one if a bush exists in the garden—and note the beautiful coral pink blush that suffuses the

inner petals, a blush that we may, under ordinary circumstances, look for almost in vain in summer. Gustave Regis, L'Idéal and Mme. Eugène Resal are others which come to mind that develop richer tints of gorgeous colours in the autumn than at the more legitimate time of flowering.

Fragrance, too, is in some cases more fully developed now than earlier in the year. I know of no greater joy in the garden than to visit a bush of Mrs. John Laing or La France on a misty

Gloire de Dijon, Gustave Regis, Ecarlate, Blush Monthly, Zephyrine Drouhin, Longworth Rambler, Mme. Abel Chatenay, Betty, Gustav Grünerwald, Caroline Testout, La France, Pharisæer, Corallina, Laurette Messimy, Cramoisie Supérieure, Mme. E. Herriot, Lady Ashtown, Princess Mary and Mme. Isaac Pereire are varieties that I either have flowering moderately well in my own garden or which I have noticed in friends' gardens that I have visited during the past week. There

are many other Roses which, under ordinary weather conditions, will give an abundance of beautiful and fragrant blooms at this season, and in the conception of Rose gardens the wise owner will demand that a broad and pleasant expanse be set apart for them. A. B.

ROSES BLUSH RAMBLER & PSYCHE

With me these Roses grow 12 feet high, therefore are suitable for any position. The blooms of the former are the most lasting of all varieties that I know. It is one of the cleanest sorts, too, never seeming to be attacked by aphids or mildew. As a wall plant it is a huge success. Psyche as a pillar in the mixed shrubbery is a treasure where it can have unlimited space to spread its top growth and flower, especially if allowed to remain two seasons without the usual severe thinning out of the old wood. E. M.

ROSES IN YORKSHIRE

Mrs. T. Hillas.—This is one of the lesser-known varieties that has been a great success this year with me, and is a fine, shapely flower; long-pointed bud opening to a large full bloom; colour pure chrome yellow, very pleasing. I cut good blooms recently and there is a promise of more if the weather is kind. Another variety that is still in bloom and a very fine, healthy grower is

M. Paul Lede. The colour is always attractive, but especially so in late autumn. The deep rose tone takes on a variety of yellow and orange shades, and although it is somewhat variable in colour, we can forgive that because of the surprise of its lovely tints, which now and again almost come up to those of Lyon.

Mrs. Charles E. Pearson.—This is another beautiful bedding Rose that much resembles Lyon, but is to be preferred because of its better



ROSE BLUSH RAMBLER CLOTHING A PILLAR.

morning in autumn and to quaff to the full the delicious fragrance that the stray blooms to be found there are emitting. Unfortunately, a number of new Roses that are receiving recognition by those who ought to know better are almost devoid of fragrance, without which a Rose is not worthy of the name. Imagine Leigh Hunt singing the praises of a scentless Rose!

habit. It carries its rich blooms on strong, upright stems. This variety and Mrs. F. W. Vanderbilt have a great future once they are better known.

Mme. Melanie Soupert.—Not only in my own garden, but in the gardens of my more immediate neighbours, have I seen this delightful Rose come to perfection this season. Never before have I seen it grown so well; trusses of fine blooms held erect. Its colour is almost beyond description—a sort of saffron yellow tinged with a full pink; truly a peerless Rose at its best.

Prince Camille de Rohan.—This is a Hybrid Perpetual that has done remarkably well with me. It is very dark velvety crimson, and responds to liberal treatment in the way of manure, but it certainly repays one, and for the quantities of blooms yielded here it might be classed as a Hybrid Tea.

In the first week of October I had extra good blooms of Lady Pirrie, Lyon, Lieutenant Chauré, Mme. Ravary, Mme. Pernet-Ducher and Mme. Edouard Herriot. These are all proved autumn bloomers here, and I am sure it is possible under normal conditions to get some buds really good in shape and colour during the autumn if the midsummer mulching with old manure is done well. It does not seem necessary to use a large quantity, but a little good, well-rotted, short manure lightly forked in does great things, helps us over dry periods, and induces this extra bloom, which usually lasts all the month of October with me. Grüss an Teplitz is just now full of bloom and buds, and should look well for two or three weeks yet. Old Gold and Irish Fireflame are again in full and promising bud. If we get even now a little sunshine, the Rose garden will have very few plants that are not doing something to justify their existence as summer and autumn bloomers.

E. WATERS.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

Plums.—In recent calendars I have given lists of Apples and Pears, and now give a selection of Plums. Dessert:—Early Transparent Gage, Denniston's Superb, Lawson's Golden Gage, Jefferson, McLaughlin, Kirke's and Coe's Golden Drop. Kitchen: Early Prolific, Czar, Diamond, Victoria, Pond's Seedling, President and Monarch. Plums, as a general rule, are vigorous-growing trees, and to secure good crops of fruit it is necessary to restrict the roots occasionally. The branches must be kept thinned if grown as pyramids or standards, to admit plenty of light to the centre of the trees. A fruit which should be included in every collection is Bullace The Langley, a hybrid from the Farleigh Damson and Black Orleans Plum. The fruit is purple in colour, a good size, and of fine flavour. It is excellent for preserving purposes.

Wall Trees.—When the weather is favourable, all wall trees may be planted, and with Apricots and Cherries a good sprinkling of old mortar rubble must be mixed with the soil.

The Kitchen Garden.

Celery.—The late batch must be earthed up as required, removing all side growths and weeds. Tie up the foliage to prevent soil from entering the centre of the plant and, if necessary, give the roots some water. This should be done a day or two in advance of earthing up.

Turnips.—A portion of the roots may be lifted and stored in a shed, or placed in moderate-sized heaps and covered with ashes. Later plantings may be left, and if the roots are not required they will furnish a supply of green vegetable in the spring.

Artichokes.—Jerusalem Artichokes should have their stems cut close to the ground and be burnt. A quantity of the roots may be lifted and stored in a cool shed for immediate use.

Cabbage.—A few lines may still be planted if space is available; these will provide a succession, and perhaps be a valuable crop. Much will depend upon the weather, and the early supply may be ruined by frosts.

The Flower Garden.

Salvia patens.—This beautiful blue Salvia should be placed in boxes and then arranged in a cool vinery for the winter. After Christmas a stock should be worked up from cuttings.

Roses.—Pergolas, poles and fences, where climbing Roses are planted, must be examined, and any defective poles, &c., replaced. New trees may be planted where needed, and all growths made secure for the season.

Plants Under Glass.

Primulas.—Plants belonging to the earliest batch of the stellata group are now pushing up their flower-spikes, and the roots may be fed slightly if they have filled the pots. Liquid manure in a weak state and soot-water may be applied twice each week. *P. sinensis* is not quite so robust, and must be watered more carefully. *P. obconica* will soon be in flower, and if the roots are fed periodically they will continue in bloom for some months. *P. kewensis* also pays for generous treatment. A few plants of *P. malacoides* may be potted off for succession, and I find examples in 3-inch pots are most useful for decorative purposes. *P. Forbesii* is just beginning to flower freely.

Freestias.—A batch of these sweetly scented flowers should now occupy a shelf near the roof glass of a house where a little warmth is kept in the pipes. The growths will probably require some support; this may consist of twigs from an old Birch broom placed among the shoots, or three neat stakes around the edge of the pot will suffice if the growths are encircled with a thin strand of raffia. Water the roots as recommended for Primulas.

Poinsettias.—These plants are now developing their showy bracts, and to prevent an undue loss of leaves the roots must be kept just moist. Maintain a temperature of 55° to 60°.

Fruit Under Glass.

Peach Trees.—The early Peach-house may now receive attention, so that everything will be ready to start the trees into growth in due season. The trees should be pruned and tied in bundles until the glass and rafters have been thoroughly cleansed. Remove as much old wood as possible and all gross shoots, which rarely bear fruit. In tying the new growth, care must be taken to prevent overcrowding.

T. W. BRISCOE.

(Gardener to W. R. Lysaght, Esq.)

Castleford, Chepstow, Gloucestershire.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Seakale.—When growth has stopped and the foliage is turning yellow, the roots required for forcing may be dug up and left to lie on the surface for a few days. Afterwards trim all the smaller roots and store the crowns in boxes of sand in a cool place where they can be obtained for forcing as required. The larger roots or thongs should then be collected for future plantations. Cut these into pieces about 4 inches long, with a level cut at the top and a slanting cut at the bottom to distinguish them, so that, when planting, all danger of putting them upside down is avoided. Tie these with Willows into small bundles containing about twenty-five in each, lay them in closely together, and cover to a depth of 9 inches with soil. Here they may remain until required for planting next March.

Rhubarb.—Roots prepared for forcing may, as soon as the foliage has died down, be lifted and left exposed to the weather for a week before placing them in the forcing-pit. It is not advisable to lift the whole batch at the present time; this may be left until the nearer approach of hard frost, when all the roots should be taken up and placed in an outhouse ready for removal at any

time. Growth will be slow with the first batch or two. Later lots grow much quicker. Roots placed in a moderate forcing-pit on November 1 will provide a supply at Christmas. Only those roots from which no pulling has been done during spring and summer should be used for forcing.

Cauliflowers.—Now that sharp frosts are to be expected, some attention should be given to the protection of Cauliflowers. The usual method of turning over some of their own leaves is sufficient protection from a few degrees of frost; but the supply may be considerably prolonged if a quantity of plants with heads about the size of an egg are carefully lifted with good balls of soil attached and planted in a position where they can be easily protected.

The Flower Garden.

Planting Roses.—The work of making fresh plantations should soon be taken in hand. Although good results have followed spring planting, we invariably find autumn planting better, November being the favourite month. Of course, the date is subject to the season at which the young wood is sufficiently ripened to allow of the plants being moved successfully. Roses require a rich, heavy compost, and where this is not present, provision should be made for supplying it in the form of fresh loam and good farmyard manure. In planting dwarfs, the point of union of the scion and stock should be covered from an inch to 2 inches deep. A few light branches of evergreens placed throughout these young plantations will provide shelter from cold blasts and heavy frosts.

Plants Under Glass.

Forcing Hardy Shrubs.—There are many hardy shrubs which force readily during the winter and spring months and give a good display in the conservatory. These can usually be bought specially prepared and of suitable sizes for growing in pots; but in many places, if sufficient room is available it is more satisfactory to keep a stock one's self, giving each a season or two to rest after forcing. About this time the plants should be lifted, selecting those well set with flower-buds. Place them in pots or boxes with some light soil, and store them in a cool house or pit until wanted. Select those that bloom first out of doors for earliest forcing. A selection should include Azaleas, Cytisuses, Deutzias, Kalmias, Lilacs, Rhododendrons and Wistarias.

Forcing Bulbs.—The earliest-potted batches of Roman Hyacinths and Narcissi should now be sufficiently advanced to be removed from the plunging material. These should be taken first to a cool house and exposed to the light for a few days before placing them in heat. Forcing must not be too rapid at first, or the flower-spikes will suffer.

Nerines.—When the flower-spikes are over, leaf growth should be encouraged by frequent applications of liquid manure. The plants should be kept growing in a temperature of 60° at night until growth again stops, when cooler and drier conditions are necessary.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

EARTHING UP CELERY: THE ADVANTAGE OF ASHES

It is pretty safe to assume that during the next week or fortnight the majority of readers who do not fail to realise the value of home-grown Celery will endeavour to put the finishing touches upon the rows, in the shape of what gardeners call earthing up, or adding soil to ensure well-blanching sticks. And to these, few things cause more annoyance than to find that after all the trouble taken, from the seedling to the earthing stage, the greater part of what promised to be exceptionally good sticks is absolutely worthless, either owing to disfigurement by slugs, or the wholesale destruction of the hearts, caused by excessive moisture having enveloped these over a long period.

The fact is well known among gardeners that slugs have a great aversion to finely sifted coal ashes, such as those from an ordinary kitchen grate, and when we remember that the addition of these, although adding but little to the manurial properties of the garden, render even water-logged soils in a workable condition, what possible excuse can there be against adding a goodly proportion to the soil it is intended to use for blanching purposes? In case any timid reader may doubt the wisdom of using these, knowing the reputation coal ashes have of imparting their somewhat objectionable nature to whatever is brought into contact with them, I may add that I have sometimes used these alone when blanching some of the finest Celery I ever grew, and the good results which followed would have justified this course being always adopted, had circumstances allowed this to be done.

F. R. CASTLE.

RECENT EXPLORATIONS ON THE TIBETAN BORDER

MR. REGINALD FARRER gave a most entertaining lecture on "Plant Hunting on the Tibetan Border" at a recent meeting of the Horticultural Club at the Hotel Windsor, Westminster. In these days the meetings of the Horticultural Club are seldom held, but this one proved a great success and was well attended. The president, Sir Frank Crisp, presided, supported by Sir Harry J. Veitch, Messrs. H. J. Elwes, W. A. Bilney, the Rev. Joseph Jacob, a member of the Chinese Legation and many others.

Mr. Farrer prefaced his lecture by expressing gratitude to the Chinese officials for the unfailing courtesy extended to him, and he paid a warm tribute to his companion, Mr. W. Purdom, to whose courage and resourcefulness the expedition owed so much. Mr. Purdom had previously collected plants in China for Messrs. James Veitch and Sons, and before taking on the arduous and fascinating work of plant collecting he had been employed in the Arboretum at Kew. He has now accepted a prominent appointment in China as Assistant Adviser to the Department of Agriculture and Commerce, Peking. Mr. Farrer's lecture was beautifully illustrated by lantern slides prepared from photographs taken by himself and his companion. Some extremely fine pictures of plants *in situ* were shown, including *Aster Farreri* (flowers deep violet, with orange centre), *Viburnum fragrans*, and the Harebell Poppy, *Meconopsis conspersa*. The two genera *Primula* and *Meconopsis* were shown in a wealth of wild profusion, and the pictures were made all the more fascinating by the graphic and fluent descriptions, in giving which Mr. Farrer has no equal. Among other pictures that aroused a good deal of interest were those of *Meconopsis Prattii*, *Primula sinensis* in a new locality, *P. Farreri* (a new species of the *viscosa* group), unnamed Lilies, masses of *Isopyrum* in rocky places, and *Lloydia alpina*. But Mr. Farrer's greatest "find" appeared to be a new *Gentian* bearing his name and described as the most dazzlingly beautiful as yet of all its race. This plant, *Gentiana Farreri*, lately flowered in the Edinburgh Botanic Gardens. In habit it is not unlike *Gentiana acaulis*, and those who have been fortunate enough to see it say it is a plant of

surprising beauty and a real acquisition to this lovely genus. Mr. Farrer also exhibited a selection of his own flower paintings, in which some of his choicest treasures were portrayed in bold relief against a background representing the natural surroundings, incidentally showing that in addition to his zeal as a plant collector Mr. Farrer is also a good artist.

GOOSEBERRY MILDEW

CONFERENCE IN PORTADOWN.

SINCE there has been considerable attention drawn in THE GARDEN to the successful method of preventing Gooseberry mildew in Great Britain, the enclosed cutting from the *Belfast News-letter* of October 18 may interest readers. Mr. Lamb is, I believe, one of the most extensive growers and preservers of fruit in the North of Ireland. It would be interesting to know if Mr. Gill is correct when he says that the disease is spreading in England.

A. W. STELFOX.

Ballymagee, Bangor, County Down.

[The disease may be spreading in some localities, but, as explained in "Notes of the Week" in this issue, there is every reason to hope that it may be controlled without the wholesale destruction of the bushes.—ED.]

The cutting referred to by our correspondent is as follows:

"A conference between officials of the Department of Agriculture and representative northern fruit growers was held in the Portadown Town Hall yesterday for the purpose of considering the best methods of dealing with the disease of American Gooseberry mildew.

"Mr. T. P. Gill, Secretary of the Department, presided, and, in introducing the proceedings, said nothing but prompt burning of the bushes would eradicate the disease. It had been suggested that they should adopt the same plan as in England, where the burning of the bushes was not enforced. The measures taken in Ireland, however, had already resulted in a diminution of the disease, whereas it was spreading in England and other countries. If they withdrew the Order the disease would spread in a very short time and there would be an end of the Gooseberry bushes.

"Mr. C. Lamb (Richhill) said between 9,000 and 10,000 Gooseberry bushes of his were destroyed by order of the Department. Thirty-nine bushes in his garden escaped destruction. These gradually became clear of the disease, and had had no trace of it for three or more years. Under present circumstances, without compensation, no farmer would think of planting the bushes. He trusted the Department would be satisfied with pruning and the burning of the affected shoots. If full compensation were paid by the Department, it would alter the position altogether.

"Mr. J. J. W. Dunlop, Mr. T. H. Henry, Mr. Bleakley, Mr. R. T. Huston and others took part in the discussion which followed.

"Professor J. R. Campbell and Dr. Pethybridge, of the Department, replied to the various criticisms, and defended the Department's methods in dealing with the disease.

"The Chairman assured those present that the Department were anxious to do what they could in the interests of the industry."

ANSWERS TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

INCREASING OXALIS AND DIANTHUS (X. Y. Z.).—You are fortunate in the possession of a "large clump of *Oxalis enneaphylla rosea*." Not many can say so much. If you now lift it you will find it composed of a number of small scale bulbs, every one of which, separate and established, might be considered a plant. Lift the whole mass on to a sheet of stiff brown paper and carefully sort out the bulbets from the soil. This done, you may replant or pot them at once in very sandy loam, or this with a little peat added. It grows strongest, we find, in cool loam with the tubers buried above and below in a layer of sand. This layer assists in tracing the bulbets in any subsequent lifting. The greatest progress and vigour are assured by the planting out system, with also a minimum of labour. Cover them not more than 2 inches deep. The soil in which the original clump has been should be carefully overhauled for any stray bulbs. The *Dianthus* you can do nothing with now, only make sure of protecting it from slugs, which are sure to find it out. Not coming true from seeds, it should be raised from cuttings in June or thereabouts, carefully detaching any that are available with a heel and inserting in sandy soil or pure sand without further ado. If cut off and made to a joint, the chances are you will lose them all. It is plants of this sort which test the fineness of judgments of the propagator of choice alpine. For such we always found a hand-light in a cold lean-to greenhouse the best place. Here they were more under the eye and out of harm's way. Raise seedlings also, but prove them before sending them out.

FLOWERS FOR HOUSE DECORATION (T. H. K.).—You leave us in doubt as to whether you require a long succession of bloom or for any particular season or seasons. If the former, much might be done, given the opportunity, by naturalising some of the more useful of the *Narcissi* in grass, woodland or shrubbery border. *Princeps*, *Golden Spur*, *Emperor*, *Empress*, *Barri conspicuus*, *White Lady*, *Duchess of Westminster*, *Sir Watkin*, *Poeticus ornatus*, double white *Poeticus*, *Frank Miles* and *odorus rugulosus* are a few that would give variety, with a fairly long season of flowering also. These would be good for March and April. Following these a selection of May-flowering, Cottage and Darwin Tulips would be valuable. These are available in white, yellow, crimson, scarlet, rose, heliotrope and other colours. For a succession Spanish Irises would be good. *Gold Cup*, *Chrysolora* (yellow), *British Queen* (white), *Leander* (deep yellow), *King of the Blues* and *Sweet Lavender* (pale blue) would be a good set. All the above would be best in reserve beds apart, not mixed with the ordinary border flowers. The bulbs of the last named—Iris—are so small that a thousand may be planted in a few square feet, and as they are cheap as well as highly ornamental are among the indispensables for cutting. Of border flowers, *Pyrethrums Hamlet* (pink), *Mrs. Bateman Brown* (crimson), *James Kelway* (intense crimson) and *Snowflake*, singles; *Ne Plus Ultra* (pale pink), *Aphrodite* (white), *Pericles* (yellow) and *J. N. Twerdy* (crimson), doubles would be valuable. Flag Irises, too, are indispensable. *Pallida dalmatica* (lavender blue), *Innocence* (pure white), *Mrs. H. Darwin* (white), *Mme. Chereau* (white, bordered violet), *Jacquinianna* (crimson and bronze), *Mrs. Neubronner* (golden), *Queen of May* (rose lilac) and *Princess of Wales* (the earliest pure white) would all be valuable. Newer forms of these are *Isoline*, *Prosper Laugier*, *Lohengrin*, *Mrs. Alan Gray*, *Rheinnisse*, *Iris King* and *Her Majesty*, and no Orchids are more chaste or delicate in colouring. All the Irises named give their beauty in June and early July, and the garden is the poorer when they have finished their work. *Lilium candidum* should be grown by the hundred or thousand. It stands alone in mid-July and later. *Campanula persicifolia* in variety (blue and white), *Helenium pumilum*, *Geum Mrs. Bradshaw*, *Gaillardias*, *Pentstemon barbatus*, *Aster Amellus* in half a dozen sorts, *Asters laevigatus*, *Sirius*, *Lustre*, *ericoides*, *Desire*, *Novi-Belgii densus*, *Lil Fardell*, *Mrs. W. T. Wright*, *cordifolius Diana*, *Beauty of Colwall*, *Nancy Ballard*, *Climax* and *Blue Gem* (one of the best blues) are some of a set which during recent years have been much improved and made great inroads into popular favour. *Lilium*

speciosum, Montbretias, Sunflowers and Achillea Ptarmica Perry's Variety are others that should not be omitted. The single and double white Gypsophila should be freely grown. Had we known the size and number of your beds, we could have written more definitely.

TREES AND SHRUBS.

COTONEASTER FRIGIDA NOT FRUITING (*Hibernia*).—It is probable that your plant of *Cotoneaster frigida* might be induced to fruit if it were root pruned, or lifted and replanted. As a rule it fruits freely even when young.

WALNUT TREE GROWING ON AN ELM (*Walnuts*).—It is an unusual event for a Walnut tree to grow upon an Elm tree; probably a nut may have been carried up by a squirrel and been deposited in a decayed branch. On germination, the roots would be likely to push their way into and feed upon the dead wood. There is no way whereby you can increase the crop of nuts upon a tree growing in such a position, especially as the Elm stands in your neighbour's garden. If the Elm tree causes you inconvenience, you are quite justified in removing any parts of branches which hang over your garden.

THE GREENHOUSE.

ADVICE ABOUT AGAPANTHUSES AND CYCLAMENS (*I. C. B.*).—We should certainly advise you to allow your plants of *Agapanthus* to remain in the tubs, as they will keep in good health for years without being disturbed at the roots, and continue to flower each year in a perfectly satisfactory manner. Of course, it is very essential that they are, when growth recommences in the spring, assisted with occasional doses of liquid manure. The drainings from the stable will be very suitable. Care must be taken not to give it too strong, and an application about twice a week will be sufficient. Some of the more concentrated manures will also do equally well, especially Clay's, which must be used exactly according to the directions given. If the pots in which the *Cyclamens* are growing are well furnished with roots, an occasional stimulant will be beneficial. Clay's is very suitable, as also is guano, to the extent of about a tablespoonful to a gallon of water. An application once a week will be enough. When giving *Cyclamens* manure water, it is very essential to take care that none of it is spilled into the crown of the plant, otherwise the flowers are liable to damp off. A temperature of 50° to 60° is very suitable for the plants at this season. They should be kept fairly near the glass, and a very good plan is to stand them on inverted pots, as this allows a free circulation of air around them.

KITCHEN GARDEN.

WIREWORM ON POTATO GROUND (*E. R.*).—The Mustard crop dug in should prove a useful thing in checking the wireworm, and it would also be wise to add some superphosphate when you are using the sulphate of ammonia in the spring. The best cure for the wireworm, however, is to keep the ground stirred as thoroughly and frequently as possible.

LATE-PLANTED POTATOES TO STORE (*B. C.*).—The Potatoes should be lifted without delay. The best way of keeping them will be to place them on the floor of a cool room, and cover over with moderately moist sand. They can be kept in good condition for a long time in this way.

SCAB IN POTATOES (*Novice*).—If the Potatoes are attacked by the common scab, which produces scurfy spots on the skin of the tubers, they will be in no way injured for consumption by human beings. Indeed, many believe such tubers to be more floury in consequence. The disease is only skin deep. To avoid it another year, treat the seed-tubers before planting by soaking them in a solution of one part of formalin to 200 parts of water for from about one and a half to two hours. If the disease is, on the contrary, the black scab or wart disease, then the affected tubers should be destroyed by fire, especially if very bad—in any case this treatment should be meted out to all parts discarded—and either forbear from growing any Potatoes on the same site next year or grow only immune varieties, a list of which will be furnished by the Board of Agriculture.

MISCELLANEOUS.

WHITE FLY ON LABURNUM TREES (*Pest No. 1*).—We do not recognise the Laburnum pest to which you refer. Can you send us specimens in spring? If caterpillars are abundant on the trees, your best plan would be, as soon as you find them present, to spray the trees with lead arsenate at the rate of 1 lb. to 15 gallons of water.

NAMES OF FRUIT.—*Miss E. F.*—No. 3 is Cellini. All the other numbers had become detached and mixed up. Pinning on the numbers is always unsatisfactory.

NAMES OF PLANTS.—*M. M. S.*—1, *Begonia nitida*; 2, *B. socotrana* hybrid "Gem"; 3, *B. ascotensis*; 4, *B. Schmidtiana*.—*A. M.*, *Stavanger, Norway*.—*Vitis vinifera* (Vine).—*E. T.*—1, *Fuchsia corymbiflora*; 2, kindly send in flower, may be *Callistemon salignus*, the Australian Bottle-brush Tree.—*Mrs. J. H. B.*, *Annan*.—*Potentilla fruticosa* var. *leucantha*, a white-flowered variety of the common *P. fruticosa*.

SOCIETIES

ROYAL HORTICULTURAL SOCIETY.

THE fortnightly meeting held on October 24, if small, was not without interest. Orchids were particularly good, the magnificent group from Hayward's Heath attracting much attention. From Tunbridge Wells, too, came some fine novelties. For the rest, the show was made up of Carnations, Violets, berried and other shrubs, and some lovely *Nerines*, the hardy forms of the latter being noteworthy. Excellent *Chrysanthemums* were staged.

ORCHID COMMITTEE.

Present: Sir Harry J. Veitch (chairman), Sir Jeremiah Colman, and Messrs. J. O'Brien, W. Bolton, S. W. Flory, W. H. White, A. Dye, Charles H. Curtis, H. G. Alexander, W. H. Hatcher, J. Charlesworth, W. Cobb, T. Armstrong, E. R. Ashton, Pantia Ralli, P. J. Hanbury, C. J. Lucas, R. Brooman White and R. A. Rolfe.

Messrs. Charlesworth and Co., Hayward's Heath, arranged near the entrance a magnificent group of Orchids, at once a tribute to British horticulture and a testimony of the enterprise of the firm in these strenuous times. Arranging a great centre of a hundred plants of *Epidendrum vitellinum autumnalis*, with each plant carrying three or four racemes of the orange scarlet flowers, there was seen as brilliant a display of this invaluable and cheap autumn-flowering kind as we ever remember to have seen staged. Interspersed or towering above was a fine lot of the pure white *Odontoglossum armainvillieriensis* Xanthotes, the twain constituting a capital contrast. Notable examples apart from the above were *Laelio-Cattleya* St. Gothard, *Cattleya* Hesta (pure white, violet purple tipped lip), *Odontioda* Charlesworthii, *Laelio-Cattleya* Serbia var. *Princess Patricia* (a very handsome form with ruby red lip) and *L.-C. Serbia* var. *Florence Agnew* (which is also handsomely coloured and of fine proportions). *L.-C. Salonica* has singularly pure white sepals, and rich ruby purple lip with golden throat. It is very distinct and beautiful. *Cattleya* Enid var. *Reine Blanche* was very pure and good. A nice lot of home-raised plants of *Disa grandiflora* and a free grouping of the useful *Odontoglossum grande* were other features of a superb group.

Messrs. Armstrong and Brown, Tunbridge Wells, showed a dozen or so superb plants, that of outstanding merit being *Brasso-Laelio-Cattleya* The Baroness var. *Golden Beauty*. Chrome yellow to golden sepals and petals, the heavily fringed lip is coloured rosy lilac; otherwise it is golden and canary. *Cattleya* Saturn alba, *C. Claesiana* alba, *C. Prince John* Orchidhurst variety, *C. Ajax* Orchidhurst variety, *C. labiata* alba, *C. l. Princess of Wales* and *Odontoglossum Doris* (a very dark form) were other items of importance.

Messrs. Hassall and Co., Southgate, showed good examples of *Brasso-Cattleya* Nestor (rosy mauve with yellow-shaded throat), *Cattleya* Iris, and the richly coloured *Cattleya* Moira, which is very good. The pure white *Brasso-Cattleya* Queen Alexandra was also noted.

Sir Jeremiah Colman, Bart., Gatton Park, Surrey (gardener, Mr. J. Collier), showed a series of *Cattleya Alcimeda* cærulea, blue-lipped varieties evolved from *C. labiata* cærulea × *C. Gaskelliana*. The type, still perhaps the most beautiful and pronounced in colour, was also on view.

Cattleya Mrs. F. D. Godman (pale blue) was shown by Colonel Stephenson R. Clarke, C.B., Cuckfield, Sussex. Messrs. Flory and Black, Slough, had a small group, in which *Cattleya* Snowden, *Laelio-Cattleya* Thylene, *Brasso-Cattleya* Mars var. *Xantholeuca* (with rich golden yellow lip) and *Cattleya* Ruby (with brilliant ruby crimson self-coloured lip) appeared among others.

Messrs. Sander and Sons, St. Albans, showed many beautiful Orchids, the pure white *Laelio-Cattleya* Schilleriana var. *Sanderæ* conspicuous among them all. *Cattleya* Fabia alba, *C. F. var. Memoria Lord Roberts* (very large and intensely coloured), *C. Thebes* var. *Britannia* (intense golden sepals and petals and brilliant ruby crimson lip), *Cattleya* Fabia (very fine form) and *C. Fabia* alba Rex were some of the more striking. The strangely beautiful *Bulbophyllum grandiflorum* was also on view.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), the Rev. F. Page-Roberts, and Messrs. R. C. Notcutt, J. Green, G. Reuthe, C. R. Fielder, J. F. McLeod, W. Howe, J. Heal, J. Jennings, T. Stevenson, R. W. Wallace, W. Cuthbertson, J. W. Moorman, H. J. Jones, J. Dickson, C. Dixon, C. E. Shea, C. E. Pearson, W. P. Thomson, E. H. Jenkins, G. Paul, H. Cowley, A. Turner, James Hudson and E. A. Bowles.

Messrs. W. Wells, Limited, Merstham, displayed an excellent group of *Chrysanthemums*, chiefly of the decorative class, Cranford Yellow, Uxbridge Pink, White Hope, Aphrodite (pink Anemone-formed variety), Early Buttercup, Sorcerer (full bronze), Ethel Harvey (rich golden incurved) and Supreme (single crimson) being of note.

Messrs. Allwood Brothers, Havward's Heath, showed some good Carnations. Mary Allwood, Bishton Wonder, Triumph (fine crimson), Yellowstone, Nancy (new American Pink), White May Day (very good), Wivelsfield White (very handsome) and Destiny (the new cerise) were some of the more important in an excellent lot.

The Rev. J. H. Pemberton, Havering-atte-Bower, Romford, showed good Roses despite the severe weather, Moonlight, Rayon d'Or, William Shean, Lady Pirrie, Gustave Regis, Gustav Grunerwald (rich pink) and Mme. Abel Chatenay being shown in addition to many cluster sorts.

Messrs. H. B. May and Sons, Edmonton, contributed Ferns in variety, *Pteris Lawrenceana*, *Nephrolepis gracil-*

lima, *N. Millsii*, *Litobrochia gigantea*, *Todea Vroomii* and *Polypodium glaucum crispum* being notable among them. *Primula obconica* in variety was also on view.

Mr. L. R. Russell, Richmond, contributed a collection of conifers, *Retinispora tetragona aurea* and many forms of *Cypress* being noted. *Fitzroya patagonica*, *Ilex Peryi* and *Daphniphyllum glaucescens* were among others.

Mr. F. Lilley, Guernsey, showed *Nerines*, a series including *N. crispa*, *N. Rotherside*, *N. coruscans major*, *N. flexuosa alba*, *N. Purple King*, *N. Fothergillii alba* and *N. Garibaldii*. *N. Bowdenii*, the hardy kind, was very finely shown, its rosy red colour most attractive. *N. elegantissima* is also a great attraction and very free-flowering.

Messrs. Herbert Chapman, Limited, Rye, showed pot plants of *Solanum aculeatissimum* var. *inermis*, which, being interpreted, is a spineless form of the type. As a decorative fruiting subject for the greenhouse at this time of the year it is worthy of attention.

Mr. J. J. Kettle, Corfe Mullen, near Wimborne, Dorset, had a glorious lot of Violets, a rare collection of these choicest and best of fragrant flowers. *Comte de Brazza* (white), *Mrs. J. J. Astor*, *Mrs. Arthur* (good double blue), *Jamie Higgins* (double mauve), *La Burghie Lorraine* (single blue), *Mrs. J. J. Kettle* (pale double blue), *La France* and *Princess of Wales* were all well shown.

Mr. W. Wells, jun., Merstham, showed *Delphiniums*, *Aster cordifolius* and other hardy flowers.

Messrs. Godfrey and Sons, Exmouth, showed single *Chrysanthemums* freely. *Mrs. Harold Phillip* (pink), *Golden Crown*, *Exmouth White* and *Effective* (bronze) were among the best.

Messrs. R. W. Wallace and Co., Colchester, contributed a table of berried and other shrubs, the chief of the former being *Berberis Wilsonæ*, which was seen in quantity. There is probably nothing finer in this genus. *B. Coryi* (a sparsely fruited kind), *Juniperus procumbens*, *J. tamariscæfolia*, *Stranvesia undulata* (Chinese prostrate shrub) and *Berberis subcaulialata* were also on view.

Mr. G. Kerswill, St. Thomas, Exeter, again showed *Gentiana acaulis* well, the brilliant blue flowers affording no idea of the severe weather recently experienced.

Mr. G. Reuthe, Keston, Kent, showed some interesting hardy flowers and shrubs. Of these, *Pilostegia viburnoides*, *Desfontainea spinosa*, *Escallonia pterocladon* (white flowered), *Arbutus Croomii* (white bells), *Grevillea sulphurea*, *Thibaudia acuminata* (scarlet tubular flowers), *Gaultheria nummulariæfolia*, *Saxifraga Fortunei*, *S. cortusoides*, *Crocus pulchellus*, *C. p. albus*, *C. speciosus albus* and *C. Medius* were all good. A handsome lot of *Nerines* were shown.

Messrs. J. Cheal and Sons, Crawley, contributed branches of cut shrubs, *Pernettyas* in variety, *Quercus coccinea rubra*, *Hypericum androsaemum* (black fruited), *Cotoneaster Simonsii* (scarlet fruits), *Acer tataricum* Ginnala (a lovely scarlet tone), *Viburnum plicatum*, *Clematis recta* and *Cotoneaster frigida* (red fruits) being among the best.

NORTH OF ENGLAND RED CROSS FRUIT SHOW AND CONFERENCE.

THE above conference and show, held at the Rural Secondary School, Knaresborough, on the 10th, 11th and 12th inst., were very successful. The proceedings opened on the 10th with a meeting held by the British Gardeners' Association, at which Messrs. C. W. H. Greaves, B.Sc., Cyril Harding and the Rev. J. Bernard Hall were the speakers. The various meetings on the 11th were well attended, and the papers read brought forth very useful discussions. The first paper was read by Dr. F. Keeble, F.R.S., Director of the Royal Horticultural Society's Gardens at Wisley. The subject was "The Organisation of Horticulture." The opener of the discussion was Mr. W. E. Liddle, secretary of the North of England Branch of the Agricultural Organisation Society. Viscountess Wolseley was unable to be present, and her paper on "Lady Gardeners" was read by Mr. H. H. Mason. The discussion, opened by Mr. Cyril Harding, secretary of the British Gardeners' Association, was full of interest. The concluding paper was read by Mr. W. F. Emptage, who passed scathing criticisms on the Government scheme for small holdings for discharged sailors and soldiers. The criticisms met with the unanimous support of all present. On the 12th Mr. H. H. Mason gave educational demonstrations on fruit packing.

The exhibits of fruit were remarkably good, considering the unfavourable nature of the season. The chief prize-winners were Mr. R. J. Foster, Stockeld Hall, Wetherby (gardener, Mr. J. Turton); Mr. H. Rudd, Hunsingore; and Mr. G. Knight, Scriven. North of England Horticultural Society's medals were awarded Major Dent, Ribston Hall, Wetherby (gardener, Mr. Simpson); Miss Maxwell Stuart, Scarthingwell Hall, Tadcaster (gardener, Mr. E. Carr); the Knaresborough Rural Secondary School (headmaster, Mr. C. W. H. Greaves, B.Sc.) for a fine collection of fruit and sterilised fruits; Mr. A. W. Whitlock, Starbeck, for *Chrysanthemums*; and Lady Mowbray, Allerton Park, Knaresborough (gardener, Mr. P. Colohan) for a magnificent collection of fruit.

Exhibits not for competition were sent by Messrs. J. Cheal and Sons, Crawley; Mr. C. E. Charlesworth, Conyngham Hall, Knaresborough; Lady Tancred Lawson, Boroughbridge; Messrs. T. Rivers and Sons, Sawbridge-worth; Messrs. H. Merryweather and Sons, Southwell, Notts; Messrs. Dicksons, Chester; Messrs. W. Voss, Millwall, E.; Messrs. W. Seabrook and Sons, Chelmsford; Messrs. J. Robson and Son, Hexham; Messrs. H. Cannell and Sons, Swanley, Kent; and the Hunsingore and District Fruit Growers' Association.

THE GARDEN.

No. 2346.—Vol. LXXX.

NOVEMBER 4, 1916.

NOTES OF THE WEEK

THE high price of Potatoes at the present time is mainly due to small crops and a decrease in the acreage of land devoted to their cultivation. In Scotland the crops are very poor, most of the tubers being of seed size, and for the first time in many years English-grown produce from Yorkshire, Cambridge and parts of the Midlands is being sold in the markets at Glasgow, Edinburgh and Leith. Happily, the Irish crops in the main are very good; nevertheless, there is a general shortage, and it is of national importance that strict economy should be exercised in the use of Potatoes, and that, where possible, the ground should be prepared for the cultivation of next year's supply.

The Japan Society.—We understand that Sir Albert Rollit will open the winter session of this society on Wednesday, November 8, at 3.30 p.m. Mr. Harman Payne, Foreign Secretary of the National Chrysanthemum Society, will read a paper on "The Chrysanthemum," illustrated by lantern slides. The meeting will be at the society's hall, 20, Hanover Square, W.

Sycamore Leaf Spot. At a recent meeting of the scientific committee of the Royal Horticultural Society, Mr. J. Fraser showed specimens of

this common disease collected from Ockham Common, Surrey, and caused by the fungus *Rhytisma acerinum*, in which the leaves were almost entirely covered by the black spots which the fungus produces. The fungus hibernates on the dead leaves, and produces ascospores there which reinfect the tree in the succeeding year.

Rose Mrs. A. R. Waddell.—Beyond doubt this is one of the most beautiful of all Roses in autumn. We have seen it since the recent frosts and stormy weather flowering freely at Kew and in other gardens in Surrey. There is quality in the uncommon colour of its semi-double blooms,

a delicate coppery red, suffused salmon; truly an exquisite combination of colour and most acceptable at this time of the year.

The Small-Flowered Pomegranate.—*Punica*, *Granatum* var. *nana*, the small-flowered Pomegranate, blossoms during autumn, when flowering shrubs are scarce. It is easily distinguished from the ordinary Pomegranate by its lower stature, more compact habit and smaller leaves, while the flowers are also considerably smaller, being about an inch long and three-quarters of an inch across the expanded petals. The flowers, however, possess the same brilliant scarlet colouring of the

well, as it is of luxuriant growth. It also does well when replanted annually; in fact, we are not sure if this is not the best method. Plant now on good soil, and it will make 8 feet of growth next summer and fruit in the autumn.

The Himalaya Berry.—This new Berry is an extraordinarily prolific Blackberry, and, unlike most of its cousins from the States, it has the real Blackberry flavour and continues to fruit over a long season. In growth it rivals, if not surpasses, the Loganberry, and plenty of room must be allowed. Large bunches of fruit will be produced on the current year's growth, and it

also continues to fruit from the old wood. As a pergola plant or rambling over an archway it is striking in flower and fruit, and it must be reckoned the most valuable addition to the Berries since the advent of the Loganberry.

Reclaiming Waste Land.—No work can be of greater value to the nation at present and for many years to come than that of increasing the food supply of Great Britain. During the war the productivity of the land has decreased, while the necessity of greater supplies has increased. In this country twenty million acres are lying in waste or partial waste. It is the most urgent need of the moment to make that land yield food. Prices will not come down for many a day. To

prove the urgency of extending cultivation and its profit, *Country Life*, in "Reclaiming the Waste," is about to publish the results of recent experiments in bringing moorland into cultivation. Mr. P. Anderson Graham, the editor, has got the very latest and most inspiring accounts of work done by scientific agriculturists in this country and abroad, which he incorporates in a series of essays full of picturesque and original observation.

** Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.



FLOWERS OF THE SMALL POMEGRANATE. FLOWERING NOW IN FAVOURED GARDENS.

type, and they are produced with much greater freedom, almost every shoot bearing one or more flowers. It is not sufficiently hardy for border culture in many parts of the British Isles, but gives excellent results against the outside wall of a warm greenhouse facing south.

The Hailsham Berry.—This is without doubt one of the best of the autumn Raspberries, and even in the dull and cold season we have experienced this year it has ripened well, and bids fair to go on for another week or two. It is, we fancy, less subject to mould than most of the other Raspberries. The great point in culture is to thin out the canes

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Underground Storage of Fruit.—I have recently heard of a gardener in Norfolk who this year put Gage Plums underground to preserve them. The fruit was first placed in stone jars, covered, and then buried several inches under the earth. I am told it is quite an old practice and often resorted to by the older generation.—C. T.

The Hardiness of Dahlia Merckii.—Your readers need not be deterred from growing the delightful Dahlia Merckii, described in THE GARDEN of October 7, from any fear of its hardiness. This is not a warm district, and it has lived through many winters unharmed. It grows about 5 feet high and blooms freely.—F. A. S.

Butterflies on Buddleias.—I read the paragraphs on butterflies on Buddleias in THE GARDEN of October 14 with some envy. This has been a butterfly-less season here. Besides white butter-

it speedily runs to seed and is quite worthless, but sown in autumn and carefully attended to in earthing up, very useful produce will result.—NORTH NOTTS.

Crinum and Claret Vine.—A Claret Vine, with the leaves now well coloured, is against a high wall at the back of the main flower border. Just under it is a clump of the pink Crinum Powellii. The tall spikes of lovely Lily-like bloom are delightful against the dull red leaves; nothing could suit them better.—G. J.

Michaelmas Daisies.—I was extremely pleased to see the interesting article signed "H. C." on the above and the beautiful illustrations, issue October 14, pages 500 and 501. I think these lovely flowers deserve every bit of praise given them, and certainly it is hard to conceive an autumn garden without them. For the woodland and flower garden alike, Michaelmas Daisies are indispensable in the autumn. The varieties given in the article are certainly some of the best of all, and selection is a matter of much difficulty when there is such a host to choose from. So far as my experience goes, it is better to plant them in the autumn rather than wait till spring. If

Pear Comte de Lamy.—This delicious fruit is not yet, after nearly a hundred years' existence, so widely known as it should be. Raised by M. Simon Bouvier of Joidoigne, Belgium, about 1828, it was dedicated to Professor Curtet of Brussels, and its correct name is Beurré Curtet. It has suffered badly, like so many good Pears, at the hands of the re-christeners, for whom I hope a special punishment is somewhere reserved. However, Comte de Lamy it is in England, and so it will have to remain. Rather on the small side, of pyriform or sometimes Bergamotte shape, its appearance says nothing for it; but perhaps that is all in its favour. How much more interesting it is to bring forward the Cinderellas of the fruit room rather than the corpulent sisters who attract every eye! Certainly in "every well-regulated garden" a space should be found for this delicious October fruit. Mr. Blackmore at Teddington turned upon it the downward thumb, but his soil was not kind to Pears. In any medium soil it does well, and in a light sand excellently.—E. A. B., Kent.

Silene Hookeri.—The good illustration of this rare Californian alpine on page 504 of THE GARDEN, issue October 14, together with the success recorded and the valuable cultural hints thrown out, should tempt not a few to try their hand at growing one of the most delightful members of an interesting race. The point of greatest interest to me—it is of value also generally—is the established perennial character and hardiness of the species, the illustrated example having been planted, it is stated, "five years ago." Some that I know of have been little better than biennial, in large measure due, I feel sure, to soil richness and wet, both of which the plant abhors. It is in these circumstances that the cultural hints given in conjunction with the position indicated in the note referred to should be followed as closely as possible by all who would succeed. Some have also attained success by growing it in the moraine, though a sunny ridge is far more in keeping with its natural home. Seeds are the best means of increase, and the seedlings when established should be put out early. The slug is its greatest enemy, apart from the conditions mentioned above. I had in my charge one of the very few plants first introduced in 1873, none of which was long-lived, and for years the plant was not known to cultivators. Mine was on level ground, protected in winter with a hand-light. It flowered and perished without giving seed, due doubtless to unsuitable soil conditions.—E. H. JENKINS.

Short Apple Crops and the Absence of Bees.—I have just finished Apple-picking, about 5 pecks this year, against nearly 40 pecks in 1915; Pears nil. I think the absence of bees had a good deal to do with the short crop. In former years there have been tens of thousands of busy bees within 50 yards of the furthest tree. Wild bees, however plentiful, cannot compensate for their absence, especially in the early part of the year. Curiously enough, we have hardly seen a wasp anywhere in this neighbourhood during this autumn. Last year they swarmed everywhere, and for some weeks I watched them feed on the dead and dying bees which were attacked by the Isle of Wight disease. They seemed to thrive on this diet at the time. Whether the hibernating queens were killed off during the winter through the growth of the Isle of Wight disease parasite in their stomachs, it is impossible to say. Experimentally, the Board of Agriculture have in a few



A GARDEN OF SAGO PALMS, SWEET PEAS AND ROCK PLANTS IN HONG KONG.

flies, I have not seen more than half a dozen Peacocks, a Tortoiseshell or two, and not one Red Admiral. I should be interested in learning whether other readers living in or towards the North of England have had the same experience. Sedum spectabile is worth growing for the butterflies. The sight of six Red Admirals on one plant in flower is a treat indeed. The abundance of butterflies on a summer's day near Reigate made me think what pleasure butterflies must give to dwellers in Surrey.—F. A. STURGE, Coed Efa, near Wrexham.

A Garden in Hong Kong.—I enclose a photograph of an English lady's garden in Hong Kong. They garden under difficulties there, because the typhoon winds do so much damage. Many of the plants are grown in pots, so that they can be moved into shelter. We send her THE GARDEN each week, and it is greatly appreciated.—(Miss) AGNES MARRIAGE, Springfield Barnes, Chelmsford.

Florence Fennel.—May I trespass upon your space sufficiently to say that my experience of growing the vegetable under discussion on a light sandy soil proves that when sown in spring

planted in March, a reduction of height and bloom often takes place. They do better on our soil inclined to heaviness than on a light "green-sand" soil found in many gardens in the South of England. Some gardeners advise the thinning of the growths of these plants during the summer months, and say that far finer flowers are produced; but we never do this here, and we find that by giving our plants a good, well-manured soil we get great quantities of very fine flowers.—E. T. ELLIS, Sheffield.

Planting Tulips.—With regard to the planting of late Tulips, past experience convinces me that the end of October and through November is the best period for planting in the South. Early planting I am convinced tends to encourage "fire," inasmuch as the growth gets too far advanced, and this is affected by the bad frosts in the early spring. Both in my own garden and on a well-known nursery I have noted the cleanness of late-planted bulbs. I have even planted after Christmas, and, apart from a slight dwarfness, the results have been equal to the earlier plantings; and, what is most important, "fire" was absolutely absent.—T. A. W.



A THIRTY-TWO YEAR OLD CLUMP OF PAMPAS GRASS.

A Clump of Pampas Grass.—I often see accounts of Pampas Grass plants and photographs in gardening papers, but I have never seen any to equal the size of the one here. An old man in the village remembers planting it thirty-two years ago. I enclose a photograph taken last year. We did not count the spikes then. This year, however, there are 135, and I think the plant looks even in better condition

AURICULA PAGE'S CHAMPION

I HAVE read with great interest the articles in THE GARDEN which have appeared lately on Auriculas. In looking over the *Journal of Horticulture* of the year 1876, I came across the article given below, which I thought might add a little to the history of the above plant. It is a great pity that it should have been allowed to die out, as a very grand plant has apparently been lost to cultivation.

Tavistock.

W. J. MONK.

Extract from the *Journal of Horticulture, Cottage Gardener, and Country Gentleman*, Thursday, March 9, 1876:

NOTES FROM MY GARDEN IN 1875.

Flowers—Auriculas.

Amongst the disappointments of the last season was my Auricula bloom: not that I had a bad one, but it was so uncommonly late that I was unable to have any appreciable number of them in bloom for the show, held in connection with the Botanic Society's Spring Show, of the (I fear almost defunct) Metropolitan Floral Society on April 28th. Indeed, in all my experience of Auricula-growing I never knew so late a season, and I have grown them off and on for forty years. For weeks they seemed almost to stand still, and no amount of coaxing could move them on. I remember a few years ago being twitted by some person who had never grown an Auricula for asserting that the date of a show was fixed too early. Why did I not push them forward as other flowers were treated? But they will not stand the treatment that other flowers pass through. Keeping the frames close and putting the plants into the greenhouse does not seem

instances been able to infect wasps with the disease, and in some cases it appeared to cause their death. But whether wasps in general are subject to the disease it is not easy to ascertain. Personally, I hope not, as by their means healthy bees might become affected. At the present time there are hardly any bees left in Somerset.—L. BIGG-WITHER, *Birdwood, Wells, Somerset*.

Potato Arran Chief.—This is far the best Potato that I have yet grown, the best eater—any way of cooking—the best keeper and the best cropper; but I should like to know the reason why some of the sets fail to grow, but keep sound in the ground until getting the crop up. I have found, where I have changed the seed, this missing of growth does not occur. I shall be glad if any of your readers would give me their experience in the matter.—C. R. LYNN, *Barrowby Lodge, Grantham*. [The so-called "won't grow" disease of Potatoes is common to many varieties. More often than not it is the result of allowing the seed tubers to remain too long in the ground after full growth has been attained, or exposing the tubers to just sufficient frost to kill the bud within the eye and without injuring the tuber enough to make the damage apparent.—ED.]

Miller's Dictionary of Gardening.—The Rev. Joseph Jacob's most interesting account of Miller's Dictionary reminded me of what another keen gardener had written about it. If any readers are still unacquainted with Mrs. Ewing's books, let them forthwith buy, or borrow, the volume called "Mary's Meadow," and read how the children discovered Miller—"in four huge volumes, with plates. . . . We were surprised to find that the Old Squire's Scotch gardener knew Miller's Gardeners' Dictionary quite well. He said, 'It's a gran' wurrk!' (Arthur can say it just like him). One day he wished he could see it, and smell the russia binding; he said he liked to feel a nice smell. Father was away, and we were by ourselves, so we invited him into the library," &c. Mrs. Ewing's love of Nature and of gardening permeates all her work, though it condenses, as it were, in "Mary's Meadow," the serial publication of which in "Aunt Judy's Magazine" led to the formation among child readers of a "Parkinson Society," for the searching out and cultivating of old garden flowers which had become scarce; for the exchange of seeds and plants, the circulation of books on gardening, and kindred objects. No true lover of a garden, and, indeed, no lover of well-written, clean, tender, humorous stories should ignore Mrs. Ewing.—M. B. A.

than it did before.—CLARE HEATHCOTE, *Silverton Rectory, Exeter*.

Single Rose Mrs. Salmon.—I see some folks evidently admire the single pink Rose Mrs. Salmon. To my thinking it cannot compare with a pink wild Rose. Placed beside the delicate translucent petals of that exquisite wild flower, Mrs. Salmon appears as cheap, clumsy, common earthenware against priceless egg-shell porcelain. But perhaps my predilection for the latter misleads me (I do delight in fine china and detest coarse crockery!). Tell me, my fellow flower-lovers (not you, ye high and mighty but prejudiced professional florists!), is my taste at fault in this, as some others deem it with regard to the size of Onions?—ANNE AMATEUR

Scrooby Bulbs.—The little church at Scrooby must have seen many sights in bygone days, but none brighter and pleasanter than the brave show of Tulip blooms which have now for the last two or three springs spread their brilliant carpet over the field at its feet. Once in the palace hard by, the great Cardinal Archbishop Wolsey held high revel when he came to hunt the red deer in Hatfield Chase. Later still William Brewster, the Pilgrim Father, lived under its shadow. Then a period of quietude came over the little country village just off the Great North Road. Is Scrooby once more to become famous, but in a different world, for her flowers and her bulbs? Given health and life, there is but little doubt that our good friend Mr. Mallender will "do his bit" towards this end. For if his quarry is but the humble rabbit, he will have a more glorious carpet to spread for his guests than ever the great Cardinal had; while his customers will find that the spirit of the Pilgrim Fathers still finds a home in his heart and guides him in his business dealings. With such credentials, can there be any doubt as to the answer the future will give to my question?—JOSEPH JACOB.

FORTHCOMING EVENTS

November 7. — Royal Horticultural Society's Exhibition and Meeting at Vincent Square, Westminster.

November 9. — National Chrysanthemum Society's Show at Vincent Square, Westminster (two days). Nottingham Chrysanthemum Society's Show (three days).



SCROOBY CHURCH AND A CARPET OF TULIPS.

to influence their opening, and certainly does not improve the plants. I know that various plans are proposed for the purpose, but although I have tried them I never saw that they made any appreciable difference. I adhered to the same plan of growing them as I did last year—viz., not using so rich a compost for the winter season, and then top-dressing with rich stuff (sheep-manure) in the spring, and was very well satisfied with the vigour of my plants and their general healthiness. I see, however, in a contemporary, that a very experienced grower in the North recommends top-dressing with no over-rich stuff, nor so old as some people advise. I always thought that this was a cardinal doctrine amongst Auricula growers, that it could not be very well too old or too rich; but it is evident that there are differences of opinion even in this. We have broke away from all the quackeries and nostrums that used to be recommended for these beautiful plants; but I very much question whether it would be wise to go to the opposite extreme and refrain from using manure at all in top-dressing, as seems to be almost the idea embodied in the article to which I refer. The amazing progress which the plants make when top-dressed might be perhaps attained if plainer compost were used, although I doubt it. However, I may, perhaps, give it a trial this season by treating a few in the manner recommended.

As far as the value of the varieties is concerned, I have seen but very little to make me alter my views. There are some seasons when particular varieties come out prominently, as will be the case in all flowers and fruits, while there are some which in all seasons hold their own. And we have to remember that it is not with the Auricula as with other florists' flowers. You do not grow a batch of new plants every year, all of which, with the exception of two or three, you discard a few years afterwards; but you may perhaps get hold of one new one in the course of a year or two which may perhaps be better than flowers that have been sixty or seventy years in cultivation, but it is very doubtful. There has been a good deal of discussion, for instance, in the Journal lately as to the merits of two very old flowers—Page's Champion and Taylor's Glory.

Does it not seem strange that these flowers, which were in cultivation before many of us were born, should still hold such a prominent place? Mr. Glenny has been quoted as an authority, although his authority has been repudiated. I should, by the by, not have liked to have done so if G. G. had been alive. I should like to quote one whose authority is second to none, my deeply mourned friend the Rev. G. Jeans; and although it was written fifteen years ago and I am referred to, yet I cannot forbear quoting it. After enumerating the varieties in growth he says, "And now to conclude. Where are we to look among them all for the type of a green edge such as we want? I confess I know not. Is not Page's Champion

the best we yet possess? 'D.' of Deal thinks it is. 'Q.' (the Rev. John Bramhall) says it is, and I am forced to admit that it is; and therefore it is the best, for who in the Auricula world would pit his dictum against such a trio? But this I say, Shame to seedling raisers if it is; but I believe it is, notwithstanding." As to Glory, the following is his description in "Gossip for the Garden" for 1860—"The best of Taylor's then, and perhaps of all white-edged Auriculas. Pip a circle, flat; edge pure white; colour light, purplish plum, of good proportion; paste circular, substantial; eye light yellow; anthers hidden. Foliage smooth, handsome, evenly mealed. First-

cultivation in the South, while in the North it still holds its own. There died the other day at Shirley, near Southampton, one whom I remember well in days long since past—Mr. Gínger—amongst a coterie of growers of whom John Dickson of Acre Lane, Brixton, was *facile princeps*, and now the fingers of one hand are enough to enumerate all of us in the South of England. I am sure it is a fallacy to suppose that Auriculas are difficult to manage. There are some kinds doubtless, which are miffy and slow to increase or else why after sixty years should Booth's Freedom be almost extinct, and Page's Champion, Taylor's Glory, and Leigh's Col. Taylor be so difficult to obtain? But these are exceptions.

Such kinds as Waterhouse's Conqueror, Headly's George Lightbody and Charles Edward Brown, Lightbody's Richard Headly, Cheetnam's Lancashire Hero, Campbell's Lord Palmerston and Pizarro, Masters' Mrs. Sturrock and Eclipse, and many others are not only not difficult to grow, but readily increase. They require care, no doubt, but so does everything that is to be done well; but they will amply repay all the care that may be bestowed on them. I have digressed a good deal from my own culture in this rambling paper, but love for the flower must be my excuse.—D., Deal.

PERENNIAL ASTERS

OF Asters there is no end, and as tastes differ so widely, one is never safe to venture an opinion as to the best dozen or score. But as I took a peep at Mr. Alex. Porter's comprehensive collection at Davidson's Mains on October 16, the under-noted dozen specially commended themselves to me, and for the guidance of those in search of good things in this direction I desire to set their names down here.

Cloudy Blue is a pale lavender blue, semi-double, with a profusion of flowers borne on rigid pyramidal growths. Sweet Lavender is of the cordifolius type, and has flowers of a pleasing pinkish lavender shade. Lustre is a semi-double rosy blue, charming in shade and habit. Mrs. Heneage is a very free-flowering, clear blue Aster. Grace Mary Lewis has lovely cornflower, blue

flowers, under the average size. White Glimax has pure white flowers, but is hardly the counterpart of Climax, especially as regards habit, being considerably dwarfer. Pleiades is a semi-double white, the blooms assuming a pinkish hue with age, which, to my mind, adds to its charm. Mira is a semi-early Aster with a small centre, and has long, loose petals of lilac pink; a unique variety. Edith Goodwin is a lovely clear blue. Jupiter has large pale blue flowers, borne in great profusion. Rudolf Goethe belongs to the Amellus type and has deep blue flowers with just a suggestion of purple in them. The blooms average 2 inches in diameter. CHARLES COMFORT.

Broomfield, Davidson's Mains, Midlothian.



VERBASCUMS AND ARCHWAY IN THE GARDENS AT WESTBROOK, GODALMING.

rate trusser." And we have had nothing since then to displace it. Heap's Smiling Beauty was in cultivation then. Moreover, as a general rule it is not so flat as Glory, and there is a dash of grey in the edge which takes away from the perfect whiteness which distinguishes Glory. We hear faint echoes from the North of other flowers which are to beat those we have, but we may at any rate hold our judgment in suspense. I find that George Levick, for instance, which is said by some to beat George Lightbody, has had doubts thrown on its pre-eminence by no less an authority than the Rev. J. Tymons, a first-rate grower.

It is a mystery to me that this lovely flower should have so almost entirely gone out of

THE PLANNING OF GARDENS.—I

BY THACKERAY TURNER.

GOD ALMIGHTY first planted a garden, and indeed it is the purest of human pleasures," and insistence on the importance of garden planning needs no apology. Whenever a new garden has to be laid out it is well that all the many conditions which govern its planning should be fully and consciously considered, both as to beauty and to convenience. It is not, for example, the flower garden only which demands consideration from the point of view of utility. A row of Scarlet Runners in full bloom is a very lovely sight; so, too, is a good crop of blossoming Potatoes, whether the flowers be white or purple; and who can deny the glory of the flowering Artichoke, some of whose blue blossoms may well be spared from the dinner-table? Nor, again, is a flower garden exempt from considerations of practical convenience and economy.

I propose to put together some of the more important general principles which must be borne in mind by anyone who plans a garden with a prospect of success; and it must be admitted that such principles, however necessary, can never be sufficient.

Everyone knows of gardens, full of flowers and well kept, which nevertheless for some reason give but little pleasure, gardens which seem to be there because the owner thinks that a bright, well-kept garden is a proper thing to have. On the other hand, a garden with many flowers and in obvious need of attention is often extremely attractive. This is an old, old story. There are pictures of little gardens, though carefully designed and most dexterously painted; others, which we easily recognise the moment we see them, have for us a never-ending charm. Pleasurable emotion will not be excited by works in whose making no deep pleasure has had a part. A well-laid-out garden is a work of art, a personal creation. You

cannot have art without creation. To copy another garden is not sufficient. Ideas may be imitated and adapted, and possibly with improvement, but the intentional copy is bound to result in failure.

Although gardens, like other works of art, are personal creations in accordance with a personal temperament and cannot be made by rules alone—were this the case the laying out of gardens would be a science and not an art—still, as with other arts, there are some general principles underlying construction. There is a sound technique of the art. There may be an intelligent grasp of ends and intelligent acceptance of limitations, some attempt to frame broad rules for the solution of constantly recurring problems, and there are also utilitarian needs which serve, to the genuine artist, as not unwelcome limitations to his or her æsthetic ends.

As I will, I think, be found that the quality of beauty in a garden has an almost universal

charm. The extreme case is that of a garden so planned that you can lose your way in it. This is, of course, not possible in a small garden; but a garden must be very small if it is not possible to conceal some part of it, if only by confusing the boundary. In larger gardens mystery is obtained by blocking or partially blocking a view, and shrubberies are quite useful for this purpose. Hedges are also useful, and a Yew hedge forms a very perfect background for flowers. With care Yews 2 feet high will make a 9-foot hedge in fifteen years. Beech hedges are cheaper and grow more quickly. A 6-foot hedge can be obtained in six years, and although not evergreen, the brown leaves hang on all the winter and make an efficient screen. Hedges are not so extravagant in space

attention should be paid to flowers or foliage or turf which may best enhance the peep into the beyond.

I may note here that the management of hedges needs experience. It does not pay, as a rule, to put in young plants more than 2 feet high. For a Beech hedge, unless you are on chalk, it is desirable, even if it is not necessary, to give the ground a heavy dressing of lime before planting. Yews like some lime and manure. When planting, let each plant just touch its neighbour, and, after the first year, or when they have begun to grow strong, clip them back close on either side. Do this twice a year—once when the first growth has made a good start, and again when the growth which follows has finished.

To return to the matter of walls. They must, above all things, be well coped, and the provision of a damp-course will generally be money well spent. If walls have to be built of brick, they



TERRACE WALK IN MR. THACKERAY TURNER'S GARDEN AT WESTBROOK.

as shrubberies, and walls are still less so. I think that perhaps walls are cheapest in the long run, and make no demand upon the soil. It is doubtful whether a wholly satisfactory garden can be made without any walls. Probably one reason why it is easier to lay out a garden round a house than in a completely detached position is that the walls of the house give a kind of backbone to the garden.

A 9-foot or 10-foot hedge is high enough for a fair-sized garden, but enclosing walls for some reason are unsatisfactory unless they are at least a yard higher. Terrace walls may often be only seat high above the terrace walk, although they may have a drop of many feet to the terrace below. A vision of unexpected beauty, not wholly revealed, is the very culmination of garden mystery, and it must not be forgotten that gaps in hedges, openings in shrubberies, or archways in walls may be made to serve as frames to pleasing vistas or distant views, and that special

should not be less than 14 inches—i.e., a brick and a half—thick, and even then they will require buttresses or piers at intervals. It is best to cope them with roofing tiles, which should hang over on each side. If a wall is only 9 inches thick, heavy drifting rains will saturate the mortar right through, and if frost follows before the wall is dry, the mortar will crumble away.

Stone walls are very satisfactory. A rough stone wall, plastered, gives a most pleasant effect and is very durable. The "cob" walls found in Wiltshire are also quite good. They are made of clay, chalk and chopped straw, beaten together, and are usually coped with a wide thatched roof, giving a 9-inch or 12-inch projection on each side.

If funds allow, it is best to give garden walls deep foundations, so as to allow of the placing of trees and plants close to the wall without undue interference with their roots.

(To be continued)

AUTUMNAL EFFECTS IN A GARDEN AT NICE

By EDWARD H. WOODALL.

Pennisetum Ruppellianum is such an attractive plant in the autumn garden with its silvery heads of flower (somewhat like a much beautified *Hordeum jubatum*) that its merits deserve attention. The narrow leaves have a white midrib, and the fluffy and silvery flower-heads bend over on their slender stems most gracefully. It is a far better plant than *P. longistylum* as I know it, and seems both perennial and hardy. It is as effective on grass, in its way, as the Pampas Grass is on English lawns, though not exceeding 2 feet 6 inches, or 2 feet 10 inches at most, in height. It is much used in connection with *Salvia splendens*, and where the latter is grown under glass would make a very pretty pot plant to contrast with it.



A SCREEN OF ROSE DOROTHY PERKINS TRAINED OVER POSTS AND WIRES.

Salvia farinacea is a plant that is this year flowering most profusely. Sometimes it seems to go too much to growth at the expense of flower, but just now it is the best of all the blue grey Salvias; and the white form is also attractive, but does not always come true from seed. I have never seen it suffer from a winter frost on this coast, so it must be pretty hardy, unless it succumbs to the damps of autumn, and would in any case flower freely in autumn in any English herbaceous border.

"Shades of Blue."—It is a truism to say that shades of red always look good when well massed together, and now I find the same thing true of blues in various shades and types. Never before having been out here so early in autumn, I had not realised the wonderful beauty of a tangle of climbers in shades of blue. *Thunbergia laurifolia*, *Ipomœa rubro-cœrulea* (the big form, which is the deeper in colour) and *Plumbago capensis* (in many shades) harmonise together so beautifully that one longs for a big stretch of pergola or of wall to show them off to the full, and there is a hybrid of *Ipomœa Learii*, exquisite in its blue

grey shading, that must not be omitted from the blue medley. No idea of the beauty of such a mixture can be formed until one has had the luck to come across a group of this colouring before the first cold of autumn has chilled the profusion and luxuriant grace of such climbers. No one can resist the desire, I think, to repeat such a combination when time, opportunity and climate serve. Perhaps its very evanescence adds to its ethereal charm.

The fashion for glaucous and blue leaved conifers is superseded by the charms of *Cupressus arizonica*, of which I wrote last year, and the advent of the very striking *Juniperus pachyphlœa*, of which I know no more save that I have seen a row of it in a nursery. Certainly it is a very striking tree if it preserves its present character when fully grown. It is as white in leaf and growth as if it were a silver-leaved *Centaurea*, such as *candidissima*, and more closely reminds one of a silver filigree tree than anything that is real and alive. Smoke or soot would, I presume, dull its excessive brilliance, but, as I have seen it,

I should no more think of planting a row or avenue of this sparkling beauty than I would plant a forest tree with diamonds for leaves. The effect is really too garish. It must be used with much discretion, and to a real artist it opens out quite a new field for the landscape gardener. One is always saying "Nothing can beat this," and then comes a plant or tree from heaven knows where that puts a stopper on all such rash sayings. If surprises are the essence of successful gardening, I can fully recommend this shrub or possible tree; it will take a great deal to surpass it in its particular line.

ROSE DOROTHY PERKINS

I AM sending a photograph of Rose Dorothy Perkins grown on posts in what is, I think, a rather unusual way. The lawn is raised, and on the carriage drive side facing the house the slope terminates in about 2 feet of brick and flint work, divided in the centre by three steps. Three years ago Fir posts, 6 feet to 7 feet high, were put above this little wall, three on either side of the steps,

and a Dorothy Perkins Rambler Rose planted against each. These made rapid growth, and the connecting ropes were quickly covered. Last year stout wires were strained from post to post near the ground to accommodate the enormous number of strong shoots thrown up. The result this summer has been a screen of great beauty, as for weeks it was a mass of the dainty pink cluster Roses, as may be seen by the photograph of half of it, the top of the steps being on the right, and the other half of the screen beyond. The pigeons are White Tumblers.

Bishop's Waltham. (Miss) E. S. AUSTIN.

NEW AND RARE PLANTS

FIRST-CLASS CERTIFICATES.

Cattleya Thebes var. Britannia (C. Adula × C. aurea).—In effect this is a glorified C. Venus itself the result of crossing C. Iris and C. aurea in a flower of better form and more intense colouring. The shapely and broad petals are golden, the slightly goffered lip of rich ruby crimson. Very handsome and distinct. Shown by Messrs. Sander and Sons, St. Albans.

Odontoglossum Menier (O. gandavense × O. amabile).—A shapely and handsome variety with broad, overlapping petals. The predominant tone is dark chocolate, relieved by the white tipped petals and the expanse of the pure white lip. This superb novelty had a raceme of eleven flowers. From E. G. Mocatta, Esq., Woburn Place, Addlestone (gardener, Mr. T. Stevenson).

AWARDS OF MERIT.

Cattleya Fabia Memoria Lord Roberts.—A well-proportioned flower of the largest size. Sepals and petals of intense purple, the widely expanded lip of vinous purple, with orange reticulation in the throat. From Messrs. Sander and Sons, St. Albans.

Cattleya Prince John Orchidhurst Variet (C. Hardyana × C. aurea).—Sepals and petals of the purest white, the frontal lobe of the lip and sides ruby crimson, backed by golden orange and reticulated with crimson in the tube. Shown by Messrs. Armstrong and Brown, Tunbridge Wells.

Cattleya Alexandra (C. Hardyana × C. Carmichaelii).—A well-fashioned and shapely hybrid, uniformly coloured a vinous red in both sepals and petals. Lip lustrous crimson velvet, with conspicuous golden blotches at the sides, and crimson-line throat. A very beautiful form.

Brasso-Cattleya Mars var. Xantholeuca.—The white sepals are long and narrow and incline to revolute, the broad, slightly waved petals a good setting for the handsome pink-coloured fringed lip, the base of which is of orange gold. These two were from Messrs. Flory and Black Slough.

Chrysanthemum Dawn of Day.—An exhibition Japanese giving in the main a golden bronze effect.

Chrysanthemum Mrs. Algernon Davis.—A drooping Japanese of exhibition size and full pink tone with lighter centre. These were shown by Mr. Norman Davis, Framfield, Sussex.

The foregoing novelties were exhibited before the Royal Horticultural Society on October 24 when the awards were made.

WICHURAIANA ROSES

THE writer was somewhat surprised to read in recent issues of THE GARDEN that Rose Lady Gay should be considered a sport of Dorothy Perkins. This is a mistake. Lady Gay was placed in commerce in 1905, two or three years later than Dorothy Perkins. Lady Gay was obtained from Rosa Wichuraiana crossed with Bardou Job. It is a cherry pink, touched with vermillion, and fades to white. Lady Gay is more double and slightly larger than Dorothy Perkins.

Dorothy Perkins is the product of Mme. Gabriel Luizet crossed with a variety of Wichuraiana. The colour is pink and fades to white. The writer has a seedling from it, Winsor, that is fuller in flower than its parent and a softer pink in colour.

The writer knows that many plants of Dorothy Perkins have been sold here as Lady Gay by a few dealers at the price of the later introduction, and also regrets that due credit is not now given to R. multiflora japonica (Sargent) for furnishing the strong, upstanding growth and flowering qualities to the class now called Wichuraiana hybrids. The true R. Wichuraiana is a delicate beauty, a trailer with slender stems, small, shining leaves, and the best Rose we have for covering a stony hillside border or low walls, and is hardy and free from mildew. It is interesting to compare all these ramblers and note the multiflora influence in the leaves, habit of growth, bracts and, most important, the stipules.

The multiflora hybrids were first raised in America about 1892, and the Dawson Rose (multiflora crossed with General Jacqueminot *twice*) is the most striking of them yet. I have a catalogue that lists it as a Wichuraiana. Later R. Wichuraiana was introduced and promptly crossed with multiflora hybrids for its special qualities of hardiness and freedom from mildew, and these hybrids were used as parents for the newer race.

I have a new Wichuraiana (?), Tausendschön crossed with an unnamed seedling, flowers pure white, fuller than those of Tausendschön, and borne in large trusses. The unnamed seedling strayed from Mr. Walsh's nurseries to me. We received a plant of Hiawatha from him, and this seedling was growing in the ball of earth, a very small plant. We carefully cut it out as its little leaves were so brilliant, and when it came to the flowering stage we were unable to identify it. The flowers are white, on the creamy side, very full, large, but a sparse bloomer, borne in one to threes, mostly solitary. A lady of the old school, acquainted with the Roses of France, declared it to be a Noisette, and this leads me back 100 years at least. I think that Noisette's Rose was Champney's Rose (moschata × chinensis) crossed by Philip Noisette with multiflora platyphylla, and this second plant was sent from America to his brother Louis at Paris, so that it looks very much like the old adage, "Nothing new, after all, in this world of ours," and the upstanding growth of the Noisette climbers may be from the multiflora blood.

Roses raised by Dr. W. Van Fleet of the American Department of Agriculture are : American Pillar, 1902, R. Wichuraiana × R. setigera ; Silver Moon, 1910, R. Wichuraiana × Devoniensis × R. sinica ; Dr. W. Van Fleet, 1910, R. Wichurai-

ana × Safrano × Souvenir du President Carnot, said to be very good ; Philadelphia, 1904, multiflora hybrid.

R. Wichuraiana is now considered as a synonym of R. Luciae, the last named said to be the wild species, and the other forms called R. Wichuraiana

ROSE GENERAL SCHABLIKINE

In my opinion this, by no means a new variety, is one of the very best Tea Roses in cultivation, for late autumn flowering especially. We have a large bed of it here which has been planted about twenty years. The plants are still full of vigour, and at the time of writing are covered with a wealth of beautiful pink flowers. The young foliage is most



ROSA MULTIFLORA (POLYANTHA SIMPLEX) IN THE WILD GARDEN.

Note its free-flowering qualities and upright growth.

are considered as natural hybrids more or less improved by cultivation. All the forms are very susceptible to foreign pollen.

There seems to be in all the herbariums quite a number of specimens of R. multiflora, R. Wichuraiana and R. Luciae that are interrelated, much the same as R. canina in Great Britain.

T. N. COOK.

27, Winsor Avenue, Watertown, Mass.

attractive and lends itself admirably for cutting, and makes a charming dinner-table decoration. I have never once seen the slightest trace of mildew on this Rose, though other varieties grown around it are frequently badly infested. It has proved to be perfectly hardy and a vigorous grower, and likes hard pruning.

EDWIN BECKETT.

Aldenham House Gardens, Elstree, Herts.

WALL GARDENING

WHERE a garden is of considerable size, possibly having dwarf walls already in it (as is common in many stone districts), wall gardening is a comparatively easy matter, and very pretty and bold effects can be obtained by the judicious grouping of such plants as Cerastium, Arabis, Dianthus, Iberis and Mossy Saxifrage.

In my own small garden I determined to see what could be done in the way of introducing the best features of wall gardening, utilising the myriad decorative yet neatly growing plants which are available to furnish both for winter and summer effect, and which at the same time would form a collection of individually interesting and attractive subjects. The results to date have been so surprisingly successful that the method of my procedure may be of interest to other gardeners, and will, I hope, induce them to take up this form of gardening and derive from it even more pleasure than I have done.

Along my fence, which runs from north to south, I originally had a narrow border, bounded in the usual way by a more or less straight path. This border I removed and well rammed the site. Close along the base of the fence I put in a footing of cement concrete 9 inches wide and deep. Upon this a 4½-inch brick wall was run up. To give added strength to the wall, I laid into each fourth course a strip of hoop iron, running as a ribbon the whole length. This simple device, augmented by an iron support, strutted diagonally into a block of concrete at intervals of 8 feet, rendered a 9-inch wall unnecessary, and saved considerably in the cost. So that this supporting wall should securely take the strain and weight of the rock wall and soil which subsequently was to lay up against it, the brickwork was built leaning towards my garden, there being an overhang, or "batter" as it is technically called, of about 4 inches in a height of 5 feet, cement being added to the mortar to increase its strength.

While the brickwork was drying I prepared the outline of the final rock wall. The width at the base varied from 2½ feet to as much as 6 feet, where, to aid the general effect, I arranged buttress-like promontories to run out, thus giving the whole a solid and decorative appearance. When the first row of rocks was in position, I piled up against the brickwork a long triangular heap of coarse rubbly material to act as a drainage course throughout the whole, and upon this put the final compost, composed as follows: Loam, one part; ordinary garden soil, one part; sharp road sand, one part; burnt ballast, similar to broken brick, one part; new, sifted peat-moss litter, one part; leaf-mould, a quarter part; and in certain places old mortar, one part. When this soil between the brickwork and the rock wall was thoroughly trodden down and level with the latter, the next row of rocks was placed in position, of course breaking the joints of the first course as far as possible, and keeping well in mind the steepness of the building for a wall, in contrast to the more leisurely rising in the alpine garden. Where the width of the space was sufficient, I arranged small shelf-like beds, and in these positions I was able to introduce groups of plants in contrast to the more general crevice planting necessary in a wall.

In a number of cases I planted as I went—a consideration of more moment in wall building than in the ordinary alpine garden, since if this is not done one must rely to a large extent upon seedling plants, which can be satisfactorily introduced to the rock crevices at a later date; and while these make healthy and vigorous tufts and patches in due course, the time taken to clothe the work is longer. At the shady end of the wall I put much more vegetable soil into the compost, and here made a large colony of Ramondias and Haberleas, planting as the building progressed and fitting the plants neatly into the joints between the rocks in such a manner



SAXIFRAGA COCHLEARIS IN A WALL CREVICE
The lower tufts are newly planted, those above have made a season's growth.

that no soil would leak out upon their foliage. In the early summer this plantation of some thirty plants is indeed enchanting, as the bronzy green stems rise from the almost vertically growing rosettes of wrinkled foliage, displaying the orange-centred, lavender stars of the Pyrenean Rosette Mullein, or the more Streptocarpus-like blossoms of the Haberlea from the Rhodope Alps.

I made a special effort to close all chinks and crannies between the stones (where I did not propose planting) in such a way that no earth would sift out, since this would not merely harm the plants upon which it "avalanched," but would create, in the body of the wall, cavities which would cause great discomfort to other inhabitants.

On one of the chief protruding spurs I put in eight or ten young plants of Lithospermum

prostratum var. Heavenly Blue, where I desired a restful green patch, liberally bespangled during many months of the year with their cheerful azure blossoms. This colony has thriven amazingly and is now several feet across, despite the fact that the Lithospermum does not, as a rule, take kindly to my smoky district.

An especial charm in connection with wall gardening, if seriously undertaken, is that the art of crevice planting can be there brought to a higher pitch of nicety than in many other circumstances. For the plants which resent water lying about their necks during our prolonged and moist winters, this is a considerable advantage, while the appearance of a plant or colony issuing from a crack or "fault" in an otherwise solid shoulder of rock adds greatly to the general effect.

Frequently by employing two or three pieces of stone, and so placing them that the contour of the whole gave the impression of one large mass, I found it easily possible to separate them by an inch or so, thus forming a deep fissure into which the roots of, say, Saxifraga cochlearis would travel among the gritty soil with which the space was filled. By carefully wedging small tufts of the plant into this crevice and separating them by further fragments of stone, the whole has the appearance of being rooted into the stone itself, since, as the silvery tuft extends by growth, the fissure itself becomes hidden from view. In solidly packing the soil into these fissures I found a short, flat stick most useful, and the reproduction on this page shows, at the base, the small tufts just after insertion, while the upper portion of the crevice indicates the appearance after a season's growth. When the clusters of blossom of *S. cochlearis* upon their thread-like stems, or the more arching sprays of *S. lingulata* var. *lantoskana* spread forth their grace in May, the time occupied in manipulating their especial niche seems well repaid.

Into the crannies of the upper, and therefore drier, portion of the wall I planted such sun-lovers as *Erodium guttatum*, *E. macradenum*, *E. trichomanæfolium* and *E. corsicum*, while in similar positions *Acantholimon venustum* and *A. androsæmum* revelled. Where a larger space was available, the hairy-leaved *Onosma alboroseum* and the Golden Drop, *O. echioides*, made bold clusters, defying the winter moisture that too often accounts for their disappearance in other and less rapidly drained positions.

Near the footway, at the lower portion of the rock buttress, where space would only permit of some close-growing plant, *Thymus azoricus* and *T. lanuginosus* suggested themselves; while in choice crevices near the eye such dainty plants as *Edraianthus Pumilio* and *E. serpyllifolius*, planted in irregular sloping clusters, made masses of blossom in early summer, and at a little distance the charm of fragrance was provided by the Swiss Garland Flower, *Daphne Cneorum*.

In the hottest and most sun-baked positions I introduced with a marked amount of success such semi-tender succulents as *Agave Parryi* and *A. utahensis*, *Echinopsis multiplex*, with its curiously ribbed surface and large, rich pink trumpet flowers, and the less decorative, though none the less interesting, *Echinocactus*, such as *E. viridiflora*. In this connection, too, the dainty little tree-like *Crassula sarcocaulis* (a treasure from Mr. Bowles' charming garden years ago) forms a mass of pinkness in the late summer, and with a roof

glass protection (as with the other succulents before referred to) comes through the normal winter excellently.

I find it is a good plan during the first year after construction to leave the top of the wall so arranged, by means of temporary blocks of stone, that it is easy to add fresh soil to make good the sinkage, since with the utmost ramming and compacting during the formation of such a wall it is not possible to consolidate the whole as firmly as a season's rains will do, and constant attention in this direction is a necessity.

If it is possible to vary the level of the ground from which the wall starts, a further charm is given to the whole design, and a glance at the right-hand side of the illustration on this page (which shows the work in various stages of completion) will indicate the sort of irregularity I suggest. Finally, this may take the form of roughly paved steps, and the interstices of these may be garnished with such plants as: *Arenaria balearica*, *Linaria hepaticifolia* and similar minute creeping subjects, thus giving a worn and natural aspect to the whole.

REGINALD A. MALBY.

COLOUR STANDARDS

A PLEA FOR AN INTERNATIONAL COLOUR CHART.

THE promotion of colour standardisation should especially be the care of those of us who love flower colours. Only by repeating, again and again if necessary, that we do need an intelligent, scientific and widely acceptable colour guide, and by discussing and comparing notes on the subject, can we arrive at the fulfilment of this need.

The beautiful production of the Chrysanthemum Society of Paris, the "Répertoire de Couleurs," was a step in advance. With its finely exhibited samples of colour, the well chosen French colour names, the quotation and indexing of names in four other languages, the good use made of preceding work, such as that of Professor Saccardo of Padua, and the useful notes on examples of colour in vegetation, it can never be quite out of date, and a future and more complete colour guide will surely contain references to it.

A scientific system of colour gradation, together with the means of identifying and designating the colours, has, however, since been given to the world. This is in a conveniently small book called "Color Standards and Color Nomenclature," by Dr. Robert Ridgway, Washington, D.C. (1912). The plan was originally based on suggestions for a scheme of colour standards from Professor J. H. Pillsbury, in *Science*, June 9, 1893, and *Nature*, August 22, 1895. It is carried out with 1,115 colours represented, yet any one of them can be readily found when the simple method is

understood; and the place of an intermediate colour not actually shown can be estimated and its number quoted.

The key to the arrangement is the solar spectrum, with its six fundamental colours and intermediate hues, augmented by the series of hues connecting violet with red. Taking the six pure colours, red, orange, yellow, green, blue, and violet, and mixing two at a time by means of the colour wheel, and by the Maxwell colour discs, which are formed to interlock and give definite percentages, thirty-six colours were produced and—with indefinite care and repeated experiments—copied. By the same method, admixtures of white and black respectively, three lighter tones and three darker were added to each, making thirty-six scales, light to dark, of the thirty-six colours. An important addition was now made by modifying with

States). He has also mentioned the heavy tax that it proved to be on both his private time and his private financial resources. We may perhaps not persuade Dr. Ridgway to undertake another edition himself; but some means should be found whereby the world can benefit by such valuable work. When one individual has produced so much, surely the horticultural societies should be able by arrangement to put forth a Ridgway "Color Standards" with some needed pages of additional letterpress, which would be adapted for wider popular use and also for international use.

D. F. K.

COLLARETTE OR COLLERETTE.

Will some kind friend belonging to the Dahlia fancy oblige by informing me why the modern



THE ROCK WALL GARDEN IN COURSE OF CONSTRUCTION.

neutral grey every scale, in all its seven tones. Many of the loveliest colours known in Nature and art are shown in these 114 neutralised scales.

Popular names are given below each sample of colour; and, as many had to be found in addition to those well known, and well-known names carefully selected, the immense amount of labour expended on this part of the work alone may be guessed at. It is very well done. Yet the field is so large that absolute perfection is not reached, and most colour-lovers would wish to see a few changes and corrections, and anyone's suggestions may prove valuable. There is need of a classification table in the book, and of a modern index, which are easily added.

Regarding his book, Dr. Ridgway has remarked that "it was the very hardest work I ever did in my life" (and he has certainly done much work as an ornithologist of high authority in the United

single-flowered Dahlia with the little fringe or ruff round its centre is called a "Collarette"? Is it supposed to be an English translation of the French original Colletterette? If so, why is it not spelt Collaret, which is an English word? What is the objection to the French word, properly spelt, instead of the English mongrel form?

And while I am in a critical mood, will somebody enlighten me on another point? Why are the small-flowered Cactus Dahlias designated "Pompon Cactus"? Such an appellation is pure nonsense. The very form of the flower is against it. There is just as much ground for calling the small-flowering Japanese Chrysanthemums "Pompon Japs."

Who is the genius that invented such an absurdity? And why not Pompon Pentstemons and Pompon Pansies, and, finally, pompon flower-pots in which to put them?

C. H. P.

NURSERY NOTES

RAISING NEW FRUITS AT BEDFORD

WE have heard it said that the raising of new fruits is not worth the time, labour and space it involves, particularly when we consider that many of the best varieties in cultivation occurred as chance seedlings or sports in all sorts of unexpected places. It is quite true that the work involves an immense amount of time and expense; but if only more attention had been devoted to the subject in the past, we are quite certain that there would be a better selection of varieties than exists at the present time. For instance, when Messrs. Laxton Brothers of Bedford raised that grand and popular Strawberry Royal Sovereign, it might have been said to them, "Now why go on raising new Strawberries? You have in Royal Sovereign a variety that holds the position among Strawberries that Cox's Orange Pippin does among Apples, Doyenné du Comice among Pears, or Victoria among Plums." But Messrs. Laxton Brothers saw greater possibilities ahead, with the result that Royal Sovereign is now surpassed and new varieties with the vigour of youth are ready at hand. At the time of our visit an interesting contest had been carried out between the old variety Royal Sovereign and the new King George V. Sixteen rows of each were planted under the same conditions, and the plants were chosen for their uniformity throughout. The results were surprising, for while Royal Sovereign gave a moderate crop of 420lb., King George carried 740lb. King George is of better flavour, a little earlier and, so far as we know, it is the best Strawberry in cultivation both for forcing and outdoor culture.

That which Messrs. Laxton have accomplished with Strawberries they are also attempting with Apples, Pears, Plums, Raspberries, Red Currants and Black Currants. The work is not new to them, for it was started twenty-five years ago, and this explains how it is that Messrs. Laxton Brothers are now able to bring before the public novelties of sterling merit both in large and small fruits. At one meeting of the Royal Horticultural Society Messrs. Laxton Brothers received three awards of merit. If our memory serves us aright, they were Plum Early Laxton, Red Currant Laxton's Perfection and Raspberry Laxton's Bountiful; surely a record for new fruits in one day.

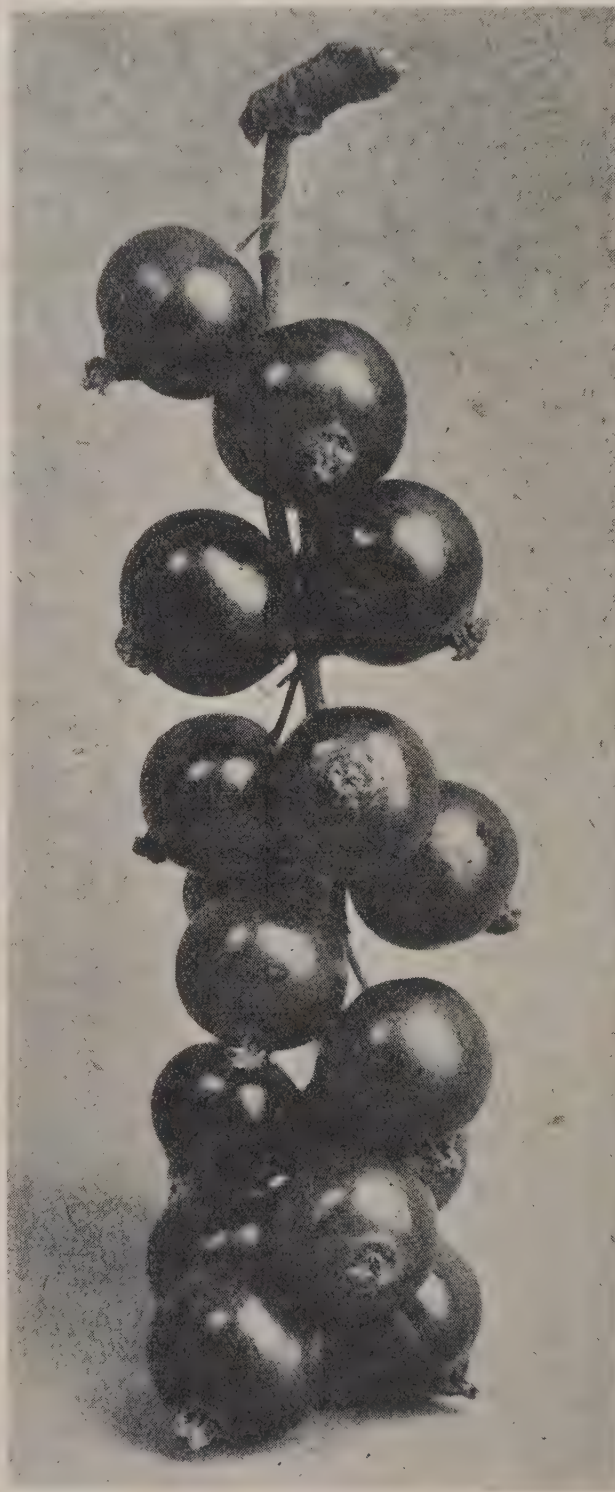
With the object of extending the season of Cox's Orange Pippin, Messrs. Laxton have carried out some most useful crosses. This variety has been crossed with Beauty of Bath, Lady Sudeley, Cellini, King of the Pippins, Ribston Pippin and Court Pendu Plat. The first-mentioned crosses are giving early fruiting Apples of shapely appearance and good flavour, while the Court Pendu Plat cross is of even richer flavour and is calculated to extend the season until March. These crosses are full of promise, and we shall certainly hear more of them later. The following three named varieties are worthy of special mention: Duchess of Bedford (best described as an improved Beauty of Bath), Bedford Pippin (Lady Sudeley x Beauty of Bath) and The Premier (the name given to an improved Mr. Gladstone).

With Plums the object of raising free-cropping varieties, such as Victoria with the flavour of the Gage has been attained, while the crossing of Red Magnum with Victoria has given an early

Victoria. The abundance of fruits carried by these hybrid Plums was truly surprising, many of the branches being overlaid with the great weight of the fruits.

In Pears the aim has been to combine such varieties as Williams' Bon Chrétien, Doyenné du Comice and Marie Louise; in fact, an effort has been made to transmit the Doyenné du Comice flavour to a large number of sorts, and this has been successfully done in some cases.

Raspberries have been largely worked, and one result is Laxton's Bountiful, which is a very



THE NEW BLACK CURRANT LAXTON'S BLACKSMITH.

strong-growing, vigorous sort, carrying enormous crops of fruit. This recently received an award of merit from the Royal Horticultural Society.

In Currants, Laxton's Perfection (which also received an award of merit from the Royal Horticultural Society in July) is the finest Red Currant yet extant. Some of the bunches carry as many as twenty-seven berries, and the plant is very vigorous.

In Black Currants, Laxton's Blacksmith (see illustration) is undoubtedly a big advance. The bunches carry from nine to fifteen berries, and this variety is a very free cropper.

In these nurseries are grown very large quantities of all the leading sorts of Apples, Pears and Plums as standards, bushes and trained trees, and it may be remarked that the trees are clean and in excellent condition. The soil on which they are grown is a rich alluvial loam. There are also noticeable some very fine specimens of trained trees in the double "U" and gridiron shapes, which are very satisfactory for small gardens. Cordons—single, double and treble—both large fruit and Gooseberries and Currants are very largely grown, the firm finding a great demand for trees in these shapes, as they are strongly recommended for amateurs. Acres of Gooseberries, Currants and Raspberries are grown. The nurseries contain an area of 100 acres.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Hardy Fruit Garden.

Planting Fruit Trees.—When the ground and weather conditions are favourable, the planting of fruit trees can be proceeded with from now onwards until March. Early planting has distinct advantages, the most important being that, with some warmth still in the soil, the trees commence root action forthwith. Have the ground prepared, so that on the arrival of the young trees from the nursery, planting can be done without delay. Should the roots have dried at all on the journey, thoroughly soak them in water previous to planting. Spread the roots out evenly over the holes, neatly cutting off broken and damaged pieces.

Strawberry Plants in Pots.—These will benefit by removal to cold frames, plunging the pots to the rims in leaves or ashes. Ventilate the frames freely, removing the lights on all favourable occasions. Where large quantities of plants are grown, those for which space cannot be found in frames may be plunged in ashes in a sheltered position under a fence or wall outdoors.

The Flower Garden.

The Spring Bedding.—Shortage of labour and a desire to retain the summer bedding as long as possible have delayed planting, but it must now be completed, or the spring display will suffer. The shortage of bulbs will make it more than ever necessary to associate spring-flowering plants with the bulbs, to spread them over as wide an area as possible. Aubrietias, Arabis, Myosotis, Saxifragas, Wallflowers, Daisies and Violas furnish the beds in winter and provide a nice groundwork of foliage and flower for the bulbs in spring.

Evergreen Trees and Shrubs.—Those who have planting to do should commence with evergreens, as it is necessary for these to make new roots as soon as planted, and this they will do now much better than in winter. Conifer planting is desirable this month, also such things as Osmanthus, Box, Olearia Haastii, Escallonia, evergreen Berberis, Cistus, Phillyreas and Rhododendrons.

Plants Under Glass.

Chrysanthemums.—These are the predominating feature of most conservatories at this season. To keep the plants and flowers in good condition as long as possible, the plants must not be crowded, and the houses should be ventilated freely on all favourable occasions. Especially is this important with the plants to flower in December, while if those to flower at Christmas and later can be left outdoors in a sheltered position as long as possible, even rigging up a temporary screen for use at night, the plants can be kept in better health and the flowering period delayed.

Greenhouse Climbers.—Always an important asset for indoor plants, it is very desirable at this season for the plants to get as much light as possible. With this end in view the knife should be freely used on the roof climbers, cutting away or shortening back as much of the growth as possible from the plants which have finished flowering and are looking somewhat ragged.

THE GARDEN.

No. 2347.—VOL. LXXX.

NOVEMBER II, 1916.

NOTES OF THE WEEK

APPLES are scarce in Covent Garden Market, and very poor samples of Cox's Orange Pippin are being sold for twenty shillings per bushel. A correspondent writes to say that some years ago, when laying out his garden, he asked the Rev. W. Wilks what varieties of dessert Apples he should plant, and the advice given was "Cox's here, Cox's there and Cox's everywhere." This is a poor year for Apples in general and for Cox's Orange Pippin in particular, and our correspondent writes bewailing the fact that he should have been so foolish as to have placed all his eggs in one basket.

Vacant Land and the Supply of Potatoes.—

Mr. Runciman's advice to eat fewer Potatoes at a time when prices are excessively high seems unnecessary, but surely a better plan would be to grow more. There is plenty of opportunity to do this on the acres of vacant building sites in and around our large cities, which scores of citizens, both men and women, are longing for a chance to cultivate. We know this to be the case in some of the London suburbs, where the allotment movement has met with serious opposition from the owners of vacant land. In other suburbs, land similarly situated is being parcelled out to neighbouring tenants at easy rents. For months we have advocated a big movement of this kind, feeling sure that it would be met with enthusiasm by allotment holders. In a certain South London suburb, some sixty plots recently offered in this way were all snapped up within a day or two, and are now being cultivated by tenants at a nominal rent.

Sparassis crispa.—Concerning this rare and locally distributed fungus (illustrated and described in the issue of October 28), Mr. A. D. Webster states that it grows in plenty beneath old Scotch Pine trees on Lord Derby's Holwood estate in Kent. Some specimens recently measured were of larger size than that mentioned by Miss Jekyll, one in particular, which was irregularly roundish in shape, being 15 inches in diameter and rising to 9 inches above ground level. This curious, sponge-like fungus is, when fresh, of a greyish brown colour and remarkably compact, but when older

it becomes more open and of a much lighter colour. Mr. Webster further states that he has always taken it to be a parasite on the roots of old Scotch Pine trees, but only such as are in a healthy condition and growing on light, warm soils.

Love-in-a-Mist in November.—It is quite a good plan to sow this hardy annual about midsummer for the sake of its delightful flowers in autumn. The accompanying illustration shows the variety Miss Jekyll still flowering in a Surrey garden long after Michaelmas Daisies have been spoilt by frost, wind and rain. These dainty flowers are most acceptable at this time of year for indoor decoration. The plants are purposely

orientalis var. sanguinea, as the name suggests, has dark red fruits. Both trees are attractive in several of the London parks at the present time.

The Ivy-Leaved Cyclamen.—The pretty Cyclamen neapolitanum, or C. hederifolium as it is also known, is perhaps the most valuable of all the hardy species. From the end of August until early November the dainty rose pink flowers, and those of the companion white variety alba, push up in advance of the leaves. There are numerous places in the garden and pleasure grounds where they will grow freely and prove of interest at this season of the year. Favourite haunts for these Cyclamen are among hardy Ferns, clustering

round the bases of deciduous trees, on grassy slopes where the turf is comparatively weak, in the rock garden, and beneath deciduous shrubs. As the plants ripen seeds they are readily propagated. Collected as soon as mature in spring, sow without delay in a cold frame. In two years the seedlings will be large enough to plant out in the flowering positions. Left undisturbed for a number of years, the corms increase to a considerable size. Following the flowers the silver marbled foliage is attractive in winter and early spring.

Euonymus planipes.—

Several of the deciduous species of Euonymus are at present very attractive by reason of their finely coloured leaves and showy fruits, but perhaps the most conspicuous of all is E. planipes, a Japanese shrub introduced to British gardens from the

Arnold Arboretum about twenty years ago. In Japan it sometimes grows to tree size, but here it is a shrub 8 feet or more high, with spreading branches. The leaves are 4 inches or 5 inches long, and in autumn they turn to a rich red colour. The fruits likewise are red, and when ripe they burst and disclose the orange-coloured seeds within. It thrives in ordinary garden soil and is perfectly hardy. As a lawn plant it has much to commend it, while it is equally desirable for the shrubbery.

*** Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.



NOVEMBER FLOWERS ON LATE SOWN NIGELLA.

grown thick, and the more the flowers are cut the better they like it.

The Oriental Thorn.—In foliage, flower and fruit Crataegus orientalis is one of the most attractive and useful Thorns cultivated in our gardens. It forms a small, round-headed tree, growing with age to a height of from 18 feet to 20 feet. As a specimen lawn tree for large or small pleasure grounds and for the shrubbery border, this Thorn is decidedly ornamental. The downy, dark green leaves are roughly triangular, not large, but attractive, and white beneath. The corymbs of white blossoms are freely produced in early June, followed in autumn by clusters of vermilion red fruits. C.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

"American" Gooseberry Mildew.—I was glad to see another recommendation for the copper soda mixture for Gooseberry mildew. By the way, we shall have to ask our English friends to drop the word "American" when they refer to this mildew. It was really one of those cases where it was passed along from England to America, and we sent it back when you took some of our improved forms of Gooseberries.—THOMAS N. COOK, *Boston, Mass., U.S.A.*

Guelder Rose in Autumn.—When shrubs are planted for effect of autumn foliage the Guelder Rose should not be forgotten. There is now a wild garden picture of, as yet, "subdued splendour," but daily brightening to a gorgeous display where a wide mass of Ghent Azaleas, now grown into large bushes, are seen against some Scarlet Oaks, with a Beech tree forming a deep golden background. Some bushes of *Vaccinium pennsylvanicum* are near the front, their foliage almost scarlet. Had there been more room behind the Azaleas, a filling of Guelder Rose, or, better still, the type, berried form, would have been there, with one Liquidambar as the culminating point of sumptuous colouring.—G. J.

The Kangaroo Apple (*Solanum laciniatum*, syn. *S. aviculare*).—In one of his interesting articles on Riviera flowers Mr. E. H. Woodall refers to this attractive Australian shrub. It is curious how rarely it is seen in English gardens, yet it is a most distinct and valuable addition to any garden in a fairly mild district. The large violet blue flowers are produced over a long period, practically throughout the summer, and are succeeded by handsome Pear-shaped fruits, first green, but becoming yellow as they ripen in autumn. The deeply lacinate leaves are borne on strong, slightly arching black stems, and form a handsome setting for the flowers and fruit. In the genial climate of West Somerset the plants seem to thrive equally well in the open (exposed to the gales) and on an east or west wall. In the open the shrubs are about 6 feet high, but will probably grow considerably larger, as all the plants I have seen are quite young and have been raised from seed. It is a shrub well worth attempting in any garden where *Solanum crispum* and *S. jasminoides* flourish, and is doubtless much hardier than is generally supposed.—N. G. HADDEN.

Ampelopsis Hoggii: A Warning.—While perusing Mr. J. McGran's interesting article on "Autumn Colouring" (issue October 28, page 524) I was surprised to see the above species mentioned as "a variety to be recommended." Surely this is merely a synonym of *Rhus Toxicodendron*, the Poison Ivy of North America. The sap of this plant when brought into contact with the human skin causes a severe eruption of long duration. In fact, with some people the mere touch of the leaves or stem is sufficient to cause the eruption, while, curiously enough, some people are absolutely unaffected by the plant at all. I believe that in America the planting of Poison Ivy is prohibited by law, and it would perhaps be a good thing if it were so in this country also. Another member of this family, *Rhus venenata* (the Poison Elder), also of North America, has similar properties, and no matter how beautiful their autumn tints, these two should be expunged from all British gardens.—R. J. M. SKARRATT, *Cheltenham.*

Apple Thomas Rivers.—I think I sent a note on this Apple to THE GARDEN a few years ago, but should like to repeat it, as the variety does not seem to be generally known. It is a Sawbridgeworth seedling from American Mother, so Mr. Rivers has informed me. Its most striking quality is its quite extraordinary flavour, which seems, when the fruit is at its best, to combine Apple, Pear and Quince. In tarts, puddings, or stewed it has no rival, in my opinion. It lasts until Christmas, or a good deal later if well kept. In form it is of a long, somewhat cylindrical egg shape; in colour yellow, with a good deal of red in sunny seasons. The tree is a splendid grower, with thick, large, dark green foliage, and makes a perfect bush. The blossom is evidently self-fertile, and here it has never missed a crop. It has one troublesome defect—that of casting its fruit in dry seasons before it is advanced enough to keep. Mr. Rivers tells me it does not do this to any extent in naturally moist soils, and in this wet autumn we have not lost a fruit. Copious waterings, where possible, are a remedy.—G. H. ENGLEHEART, *Little Clarendon, Dinton, Salisbury.*

The Himalaya Berry.—Your remarks concerning the Himalaya Berry on page 533, issue November 4, are very nice, but with your kind permission may I add to them? I have a well-established plant of it in my garden, and from observation it has struck me that this Berry, like other species, has a distinct predilection for the climate of its native land, and unless you hit this off it behaves after the manner of a weary mule. This year we had a very wet August, and my bush, while showing no end of bloom, was a most miserable failure in respect of fruit. It has also the trait of the Dewberry and lanceolata Blackberry that its pollen in some seasons is very defective, and many berries fail to set at all. It fruits late and is by no means a sweet Blackberry, and it has gigantic thorns. There is an obscure species of *Rubus*, native of the British Isles, called *pubescens*, which, if anything, is a stronger and larger grower than the Himalaya Berry, bears huge crops, sets well and is sweet. No nurseryman, as far as I can gather, catalogues this common English Bramble, and I do not think I have ever seen it mentioned in your interesting paper. What strange people we Englishmen are! It would be interesting, I am sure, to hear if any readers have had similar experience to me of the Himalaya Berry, as it seems to be in great demand in the States, where the climate is different.—W. F. M. COPELAND, *West-View, Shirley, Southampton.*

Ornithogalum arabicum.—I see that the Rev. Joseph Jacob complains that his bulbs of *Ornithogalum arabicum* refuse to start again. It is a thing that is only too common, I fear, and I believe it is caused partly by unsuitable resting conditions during the summer, and more especially by the bulbs being potted in cold soil and kept rather too moist at first. Freesias and other Cape bulbs often refuse to start when they have had the life taken out of them by too great extremes of temperature during their resting period; and to be potted up and then exposed to heavy cold rains or injudicious watering completes the paralysis that has been engendered. The very name *Ornithogalum arabicum* is eloquent of dryness and steady warmth of soil. My advice would be to keep the *Ornithogalum* bulbs on the dry side after potting and at least in a temperature of 70° Fahr., when I think growth will speedily show

itself. At Nice the temperature of the soil in October when I return is so high that the ground feels hot to the hand when dug over; and the *Ornithogalum*s are always in young leaf by the middle of the month, before the autumn rains have really begun and before the ground has lost its heat. Being so indifferent to cold later on in winter, it is easy to forget how much such bulbs dislike an early check in temperature. Such, I believe, is the cause of the failure of many bulbs. Sometimes I have known them to remain dormant and start again another season, but only when they have not been chilled down too soon in autumn.—E. H. WOODALL.

Protecting Cauliflowers from Frost and Rain.—The following plan I have found to answer well: Before severe frost has had time to damage the centres I take all the leaves in both hands, draw them upwards to a point, and tie them tightly at the top with bast or string. This forms a roof over them which keeps out frost from doing harm to the flowers. The plants are not removed from where they are growing.—J. K. LANCS.

The Varieties of *Colchicum speciosum*.—I rather think, from what I have observed, that *Colchicum speciosum magnificum* is the same as one which used to be sold by the late Mr. John Wood of Kirkstall, father of Mr. Wood of Boston Spa, as "Wood's deep-coloured variety." It is much finer in its colouring than any other variety I know, and I have grown as many *speciosum* varieties as I could secure for some years. *C. speciosum rubrum* is an improvement on *C. speciosum* itself, by reason of the ruby colouring of the tubes. *C. s. maximum* is an improved form of *rubrum*, but Mr. Wood's (*magnificum*, I believe) is deeper still and wonderful in its intense ruby colour.—S. ARNOTT.

The Gardens of the Fatherland.—My knowledge of Germany is very limited, but during my short stay just prior to the outbreak of war I saw nothing in the vicinity of Hamburg comparable to our suburban gardens. For the most part the villa fronts were grass patches, with a few shrubs and invariably one or more quaint stone figures of little old men with long beards and brewers' caps. The various nurseries I visited were practically all devoted to the production of stock for foreign trade. The exhibition gardens near Hamburg were puerile compared with what we know, the only redeeming feature being the great Rose garden, and even this was no more remarkable for its display than is any one of our great Rose nurseries.—T. A. W.

A Letter from "Anne Amateur."—As I am sending THE GARDEN (issue October 28) containing my "Floral Recollections of South Hackney" to a few old friends, I am glad the letter had the fortune to be in such a particularly interesting number. I was especially pleased with "Autumn Colouring" and "The Roses of Autumn," as I am adding to my hedge of sorts just now. "The Corsican 'Maquis'" is most fascinating, too, though some of the plants are not my personal acquaintances. And I feel awfully pleased to find that such a "great gun" as E. Molyneux advises planting "Narcissi in Herbaceous Borders" in the very way one ignorant old "Amateur" has planted them for many a year in her little cottage garden. I got over—or under—the difficulty about disturbing the bulbs by planting them rather deeply, and, later, sowing shallow-rooting annuals above, where the summer growth of herbaceous plants did not cover vacant spaces.

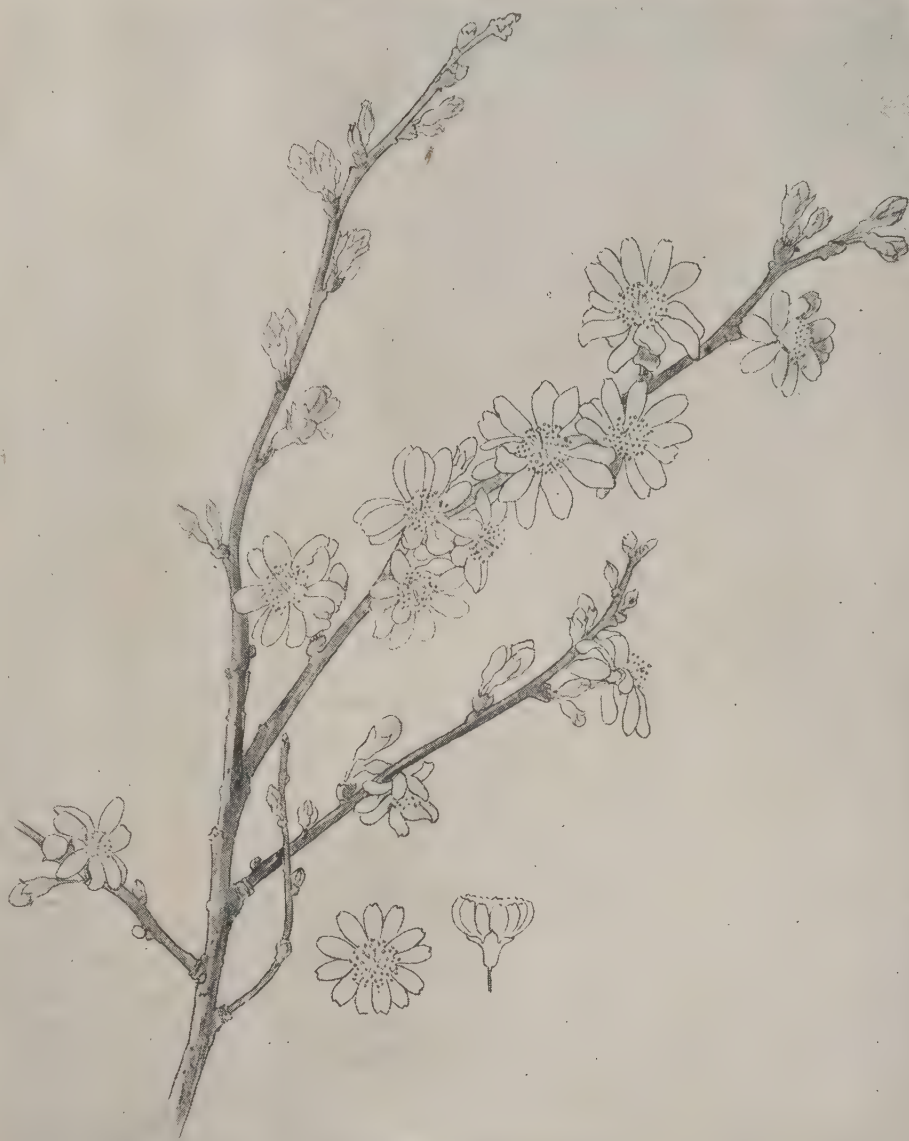
Among plants named in "Notes of the Week" and "Correspondence," *Fuchsia gracilis* and the Great Ox-eye Daisy (what a delightful photograph, and so are those of the Foxgloves!) are old favourites dear to my heart, and that "homemade weeding tool" is being copied at once. I read with the greatest glee Mr. Bowles' remark that Hawthorn smells like "fish shops." I have often *thought* so, but did not dare to fly in the face of all the poets' praise of it, for I once got into dreadful disgrace by indiscreetly saying, "Myrtle blossom smells like fried bacon" (so does *Wistaria*). "Oh, unromantic girl," they said, "go back to your cooking, and don't make such unpoetic comparisons!" (Yet they liked fried bacon.) Miss Jekyll's article is extremely interesting. I know as yet little of fungi, but am learning by the aid of Mr. Swanton's book on fungi, which I find most helpful. I wish I could get some Morels; mushrooms abound in my orchard. I put in some fresh spawn in June, as you advised, with satisfactory results, though Mushrooms have been scarce this year. I heartily agree with your remarks about Gooseberry mildew. It is right down wicked of the authorities to destroy bushes without giving the unlucky growers a chance to try remedies. It will, I fear, deter many from planting fruit trees, for fear of what may befall in future, and planting new trees I consider is a patriotic duty this year.—ANNE AMATEUR.

An Autumn-Flowering Prunus. Under the respective names of *Prunus Miqueliana*, *P. microlepis*, *P. Smithii* and *P. subhirtella* var. *autumnalis* a remarkable tree of Japanese origin is at present flowering in several gardens. Since Mr. F. Smith of Newry introduced it a few years ago, a more or less irregular display of flowers has generally resulted in winter during mild weather. In October of this year, presumably due to an unusually mild and moist autumn, a tree at Kew some 7 feet to 8 feet high produced a display of blossoms equal to that which one ordinarily expects from a flowering tree in spring. *Prunus subhirtella* var. *autumnalis*, which is now the generally accepted name, produces small clusters of semi-double flowers an inch across, at first white, the centre changing to pink with age. In addition to its undoubted beauty, the blossoms are deliciously fragrant. The origin of this remarkable tree is shrouded in mystery; the generally accepted theory is that it is a cultivated Japanese plant. As might be expected from a semi-double flower, all efforts to set fruits with its own pollen and with the pollen of several early flowering *Prunus* have so far proved unsuccessful.—A. O.

FORTHCOMING EVENTS
November 16. — Sheffield Chrysanthemum Society's Annual Show (three days). Manchester and North of England Orchid Society's Meeting and Exhibition.

PÆONIA PEREGRINA GIFFORD'S VARIETY

AS the flowers of *Pæonia* illustrated in THE GARDEN of June 10 last, which have incited the remarks from Mr. Lynch in October 28 issue, were grown by me, I would like to ask Mr. Lynch by what intuition does he come to the conclusion that the picture really does represent *P. officinalis lobata*? He seems to base his opinion on the shell-like appearance of the petals alone, and yet he says that *Pæonia* is very deficient in flower character, and, further, states that the *P. officinalis*



AN AUTUMN FLOWERING CHERRY FROM JAPAN (*PRUNUS SUBHIRTELLA AUTUMNALIS*) NOW FLOWERING AT KEW.

group is characterised by leaves of deep green colour, pale green below, not glaucous, rarely slightly pubescent. Surely Mr. Lynch cannot trace these characteristics in the picture, whether absent or present. They are absent, consequently could not help him to form his judgment. It is quite true, as he says, the colour of the flower is not evident; it must follow that the colour of the foliage is also not evident. Neither does the picture show the absence or presence of either glaucousness or pubescence; and, again, if characters are lost in dried specimens, how much less discernible in an illustration!

The foliage of the plant illustrated has nearly all the characters, that Mr. Lynch ascribes to the *peregrina* group, none of which are distinguishable

in the picture. Again, the habit of the plant is dwarfish, although robust; the leaflets are few, broad, and of stout substance; the foliage of *lobata* is thinner, finely lacinated; and a most decided distinction lies in the rootstock, which seems to be ignored. My impression is that Mr. Lynch has never seen and does not know the plant illustrated, and if it would interest him to know more of the rare form of *P. peregrina*, I must refer him to Kew, where he will be able to obtain all the information required; or why not procure roots of both the plants in question and arrive at his conclusion from the living specimens?

However, as others may be interested, I now state frankly that I know nothing of the origin of *P. peregrina* Gifford's variety. It came into my hands some thirty years ago under the name of *P. lobata*, and I have grown it ever since. Last year I had the finest display of my life—nearly a thousand blooms—and I invited the late Mr. Harvey, then Editor of THE GARDEN, to view it. He came, he saw, and was charmed. It was a delightful stranger to him (see his notes in THE GARDEN, issue July 17, 1915, with illustration), and as he was going to Kew the next day he took some flowers with him, as he said, to show them something they had not got. He was correct; Kew had not got it and did not recognise it. However, they procured some plants from me. This year I wrote them asking what they thought of it, to which they replied: *It is possibly a cross of P. peregrina, Mill., and P. decora, and that it seemed advisable to give it a fancy name, such as P. peregrina Gifford's variety, that would be sufficient to mark it as something distinct for horticultural purposes.*

I think I must defer to Kew, who came to their conclusion from the living plant grown under their own observation. Granting all deference to Mr. Lynch's wide knowledge of plants generally, he will hardly wish to controvert Kew until he has seen the living plant. *Pæonia peregrina* Gifford's variety, so charmingly arranged and illustrated in THE GARDEN of June 10

last over [the name of *P. officinalis lobata*, is undoubtedly the most beautiful of all the single *Pæonias*.

Going back to 1914, flowers that were cut from my plants were put before the committee of the Hardy Plant Society (not by me) under the name of *P. officinalis lobata*, and were awarded a certificate. So that *lobata* is really sailing under false colours!

That nomenclature confusion does exist among the single *Pæonias* is palpable. I saw this last June at the Royal Horticultural Hall. In one exhibit *P. decora* was boldly named *P. officinalis lobata*; in another exhibit *P. decora* was named *P. anomala*. Pity it is so!

Montague Nursery, Hornchurch. F. GIFFORD.

NOTES FROM MYDDELTON HOUSE GARDEN

BY E. A. BOWLES, M.A., F.L.S.

THE night of October 20 brought us the first sharp frost. Eight degrees were registered by the thermometer, but it is in rather a sheltered position and there may have been two more degrees on the grass and in open places. I never remember the first autumnal frost doing so much damage to the good looks of this garden and the trees round it. Everything was so unprepared, sappy and green that many really hardy things look sorely stricken. For instance, the common Sycamore was in full summer green last week, and now every leaf is withered and pallid, of a strange grey shade that is gradually turning to a dull brown. The Maidenhair Tree, that generally turns to such a pure, transparent golden yellow, will not do so this season, for every leaf has wilted and shrivelled. The Gunneras have been unusually fine, evidently enjoying the wet season, and now every leaf has collapsed just at its junction with the leaf-stalk and hangs down in so dejected a posture that the general appearance is almost as ludicrous as it is dismal. The group in the damp meadow looks at dusk like two recumbent elephants, due to the unusual shade of brownish grey that has replaced the rich green, and the suggestion of huge ears offered by certain of the leaves. In full daylight it looks more like a stack of broken umbrellas.

Of course, the bright Dahlias, Salvias and all other summer bedding plants have been cut off for the season, but it is sad to see *Anemone japonica* in all its forms and many of the Asters ruined so early. The early disappearance of tender bedding plants allows the clearing and digging of the beds to take place in the better weather, and the Tulips can be got in on pleasant sunny dry days. So there is much consolation to be found in their exit. But the sodden leaves and drooping heads of the *Anemone*, and such things as *Bœhmeria nivea* the Chinese Nettle, and *Clerodendron foetidum* one does not like to cut away too soon.

It is interesting to notice the difference in behaviour of certain trees; in some the leaves fall a few hours after the frost has melted away. This is generally because the sap left in between the separating layer and the footstalk becomes ice, swells, and pushes the footstalk off, but holds it in position frozen on to the stem. Directly the ice melts, however, there is nothing to hold the leaf on, and down it falls. The Mulberry, Ailantus, Black Walnut, Paulownia and Catalpa behave thus, and, being Southerners, one is not surprised; but it seems so strange that the Ash, a tree of the North, should cast its leaves green and suddenly. Then again, it is remarkable that things with tough skins, such as Sycamore and Gunnera leaves and the thick, downy sepals of *Anemone japonica*, should suffer so much when frozen, and yet the delicate segments of autumnal Crocuses, formed of thin-walled cells, apparently full of juices, should take not the slightest harm,

unless they were wetted externally before the frost caught them. The disfigurement of so many gay flowers has left those that can bear the frost a clear



GALANTHUS NIVALIS VAR. OLGÆ.
(From a drawing by E. A. Bowles.)

stage, and one realises how precious and lovely they are. It is the right week for many of the Western species of *Crocus*. The Eastern *C. speciosus* and *pulchellus* are past their full tide, though many are still fair in drier or more shaded quarters, and the pretty hybrids of these two species are well out. These mostly resemble *pulchellus* externally in being a lighter blue and less feathered than the *speciosus* parent, but are richer in tone

than *pulchellus* in the interior. Their most striking character, though, lies in the intermediate coloration of the anthers, which are of various shades of cream colour, instead of the orange of *speciosus* or the white of *pulchellus*.

The beautiful pure white form of *pulchellus* is still in full beauty, as it flowers rather later than the type form. *C. medius* was very lovely in the sunlight to-day, its large rosy lilac blossoms wide open and showing the beautiful purple lines that form a star in its throat but do not extend further up the segments. This rich veining and the brilliant scarlet of its feathery stigmata distinguish it easily from any other leafless autumnal *Crocus*. It is only found wild on the lower spurs of the hills along the Riviera between Mentone and Genoa. How much I should like to visit all its stations while it is in flower, hunting for colour varieties and albino forms! The name *medius* was given to it because it was thought to be intermediate between *C. sativus* and *nudiflorus*, but in structure it has no close relationship with either and only a slight outward resemblance to *nudiflorus*. This last is a treasure among Crocuses, but is very seldom seen in gardens. It is so common in parts of the Pyrenees that its small corms may be dug up with every thrust of the trowel. I found a good many when collecting *Hepaticas* near Bayonne one spring, and they have formed a good patch by now. But were it not for some kind cousins living in Asturias who send me generous supplies, it would spread but slowly to other parts of the garden. It increases chiefly by slender underground stolons, ridiculous little rootlets, that suggest Couch Grass rather than *Crocus* corms and might easily be thrown away. They take two or more years to develop into flowering corms here, and I must wait that period to see flowers on my recently collected roots. The rich red purple colouring of its long, tapering buds is worth waiting for, and I advise all who can get it to grow *C. nudiflorus*. It and its near relative *C. asturicus* are now brightening certain parts of the rock garden where *Campanulas* and other summer flowers have been cut down.

The photograph reproduced on page 547 shows one such place. It was taken in early July when *Silene sibirica* in its two forms, cerise and flesh colour, *Campanula persicifolia*, *Oenothera speciosa*, *Linaria tristis*, the little black *Viola tricolor* and such-like annuals and easily grown things covered the ground in a gay tangle. Some weeks ago I pulled up the annuals, cut down the perennials and left the ground clear for autumnal Crocuses, some of which will, I hope, carry on the provision of flowers until *Galanthus byzantinus* and the earliest of the spring Crocuses relieve them.

The Snowdrop season has commenced early this year, for *G. olgae* threw up a few flowers three weeks ago and is now in full swing, and *G. Rachelæ*, much like it, but a trifle larger and freer in flowering, is just appearing. These two are no more than forms of *G. nivalis*, but very distinct ones, in that they flower in autumn and without leaves at their first appearance. These appear in some seasons when the flower-stalk has reached its full length, but even then remain very

short until the flowering period is past. *G. Olga* seems to do best when planted at the foot of some shrub, and is well worth its space, as the flowers bring such a message of spring in the dreary days of falling leaf and fading flower. They possess a very strong and sweet perfume, with a touch of Hyacinth scent added to the faint Primrose sweetness of ordinary Snowdrops. I have also been enjoying the fragrance of the old double Musk Rose, a plant all too rare in our gardens. It flowers very late in the season, and a truss or two of its pure white, semi-double flowers will scent a room for several days. The faded flowers retain so much sweetness that I should say this Rose would be one of the best to make pot-pourri. I gathered some sprays of it after the frost had touched them, but they recovered perfectly after being a day in a warm room, and fresh buds opened quite happily.

I can only grow one *Sternbergia* well, though I should have expected the summer heat and drought of this garden to have suited any of them. My faithful one is *S. lutea angustifolia*, and is now gay with its Daffodil yellow flowers among the glossy, rich green leaves. I am trying to make an edging of it along one of the Iris beds, but it is not so happy there as in some of the steepest and hottest banks of the rock garden. It ought to have been long ago called the Autumn Daffodil, seeing that it belongs to the *Amaryllidaceae* and the green ovary and its membranous spathe at the base of the flower are so much like those of a *Narcissus*. Its upright flower causes everyone to think of a *Crocus*, I suppose; but if a flower is bent over at right angles to its stem, one sees the Daffodil family likeness at once.

THE PLANNING OF GARDENS.—II

BY THACKERAY TURNER.

(Continued from page 537)

FEW people can afford to garden without keeping one eye fixed on economy, and it will be wise to remember the importance of economy in working as well as economy in construction. In planning your garden it is therefore wise to consider where you are going to keep your manure and where you are going to put your rubbish.

If a garden runs in any direction more than 50 yards or 80 yards, it will be found extravagant in labour to move all manure, rubbish, or earth by barrow. Care, then, should be taken to make paths wide enough to take at least a two-wheeled truck, and for a still larger garden some of the paths should allow the passage of a pony cart or even a farm cart, and a further difficulty lies in providing either room for such a cart to turn or in making the wide path continuous.

Another essential point is the necessity for providing water both for the flower garden and for the fruit and vegetables, and this must be considered from the first. If there is a water company or town water supply available, it is well to sink galvanised iron tanks in convenient places, and lay the pipes to them underground before the garden is completed. Where no such convenience exists, one or more ponds can be made, and ponds are great aids to the beauty of a garden. They can often be kept supplied by the rainfall from roofs; but in that case, if the fall of the land

allows, the water should not be taken direct to the ponds, but to underground tanks, from which the supply can be drawn so as to keep the ponds at their proper level during the summer. The waste water from baths can also be stored in tanks for the kitchen garden.

If roads and water are the two practical needs which first claim the attention of the garden planner, the question of levels is equally important practically, and even more important as a source of beauty. If it presents the greatest difficulty, it also, if skilfully treated, gives the greater charm. A garden on a dead flat can never compete in beauty and interest with one of varied levels. The writer remembers a garden of his earliest youth in the fenland of Lincolnshire, a garden noted among its neighbours because it had a hill in it. Those who laid it out a century ago had made a pond and dug a well in it, and the material taken out to form the pond and well had been cleverly used to make the hill. The hill was crowned with low shrubs and backed by strong-growing taller bushes and trees, quite concealing the extent of the rising ground and creating an illusion of its continuance. The slope was turfed so that people could walk up it and, above all, children could roll down it. Oh, the joy of that hill to us children, who at that time had never seen another! And yet I suppose our hill was barely 6 feet, or at the most 8 feet, high.

Broadly speaking, it comes to this: If the site of your garden is level, the one thing you have to do is to break that level by a raised terrace or a steep bank or an artificial depression. If your site is sloping or uneven, you must use your ingenuity to get level lawns and level walks and borders. This work is, unfortunately, expensive, as it involves shifting earth, building retaining walls and laying steps; but then, how effective steps are! Few things in a garden are finer than a flight of steps, but they should not have a "rise" of more than 5 inches for each step. Four-inch risers often look better. Further, the less the rise the greater the "tread" is a sound principle. With a 5-inch rise an 18-inch tread or width will not be too much. In varying your levels it should be remembered that steep grass banks have serious drawbacks. It is very difficult to

cut them, and in dry weather the grass, from excessive drainage, quickly turns brown.

Anyone who has seen some of the fine Italian gardens, with terrace above terrace connected by ingenious flights of steps, will realise the advantage which falling ground gives to the good planner of gardens. Many such gardens have the further advantage of a mountain stream held up in ponds and led from terrace to terrace in a series of tinkling waterfalls, tempering the summer heat for thirsty plants and charming the ear with a suggestion of coolness.

We have seen that the first needful considerations in planning a new garden are the water supply, position of manure and rubbish heaps, the arrange-



A CROCUS BANK IN SUMMER IN MYDDELTON HOUSE GARDEN.

ment of paths and roads needed for the working of the garden, and the management of levels. With these ideas in mind a visit may be made to the site and a scheme framed on the spot. Pegs may be driven to fix certain spots, but it will be found necessary to have the land accurately measured and drawn to scale, with all the levels marked on the plan. With such a plan it would be quite possible for anyone accustomed to garden planning to work the whole thing out without having gone near the place, in the same way that some architects will plan buildings without having once visited the site; but such planning is most unlikely to produce a first-rate result.

(To be continued.)

A JULY FLOWER BORDER

BY GERTRUDE JEKYLL.

WHERE flower borders or any garden spaces can be given to special seasons, it follows that plants can be placed with a sure hand for a certain effect. The illustration shows a section of a flower border for July, of white and purple colouring. There is first a bold patch of *Chrysanthemum maximum*, a plant that is grown and sold in a large number of forms, some of them named, but in the present writer's estimation none so desirable as this. The endeavour to get these Daisies as large as possible has resulted in a coarse quality both of bloom and stem, and the desire for change has favoured other varieties with thread-like or fringe-like petals. The white Daisy is followed by a group of *Erigerons* in three varieties, of some of the best sorts in varying strength of tint, among them the pretty *Quakeress*—all improvements on the type, although none has yet got rid of the greenish tinge in the yellow eye that is the only

fault of this otherwise excellent summer flower. The grower who will succeed in abolishing this greenish taint will indeed be a benefactor to horticulture.

Beyond the *Erigerons* comes a drift of *Salvia nemorosa virgata*, a grand plant of long bloom duration, about 4 feet high. Its proper time is rather earlier than that of its near neighbours, but as the purple bloom goes off, the mass of rich deep red purple coloured bracts becomes more prominent and the whole thing makes an even better setting for the groups of flowers that show in front of it. Beyond this again is a mass of *Clary* (*Salvia Sclarea*), an old plant of herb gardens, but of great value in the flower border. The actual flower is something between blue and white, but the chief effect is from the combination of this with the quantity of broad mauve bracts. As the plant is widely branched and the bloom is closely set, a group of it forms a cloudy mass of well-harmonised colouring of a charming and

unusual quality. Backing these flowers is a mass of the grey red *Atriplex hortensis*, allowed to grow nearly to its full height near the *Clary*, but cut down to suitable heights where it forms a background to the lower flowers. At the front of the border is an irregular edging of *Sweet Alyssum* with *Ageratum*, and *Sea Lavender* following to take up the purple colour. In the further part of the grouping is a planting of that very useful grey *Artemisia Ludoviciana*; it can be made to serve in any part of the border as it is willing to be cut down to any desired height. A cross path comes just beyond this group of July flowers, but the colour is taken up again by *Eryngium Oliverianum* and further by an edging of *Nepeta* which continues to show a faint tint of grey and purple, long after its blooming time.

A few yards away is a good July plant that might well have preceded the colour group just described; this is *Sisyrinchium striatum*. From a handsome sheaf of Iris-like leaves some twenty to thirty flower-stems are thrown up; they are 2 feet 6 inches to 3 feet high and are thickly set with a mass of palest yellow bloom. It revels in hottest sunshine, thriving in a warm exposure in light soil.



THE JULY BORDER AT MUNSTEAD WOOD.

NOTES ON NERINES

BY THE REV. JOSEPH JACOB.

WHAT Tulips are to spring, Nerines are to autumn. A cool greenhouse full of Nerines in all their various shades of crimson, red, rose, pink, orange, salmon, blush and white in

the early hours of a sunny October morning, or, again, an hour and a half before sunset, is a sight which for magnificence and brilliancy, if such a thing be possible, out-tulips Tulips. All through the sunny day these children of the night scintillate and shine in their tinselled and sparkling splendour, but, so it always appears to me, more especially when Phœbus Apollo is beginning and ending his course. For then the glint of his rays falling on the responsive petals causes the eye, struck with wonder, to see stars of diamonds and high lights, as it were, of burnished silver seemingly at play on and among the beautifully coloured curled and oft-times crinkled petals.

The goose that lays the golden egg can be killed. But, says Mr. H. J. Elwes, whom I may fittingly call the Nerine king, "you cannot kill Nerines." They are a cat-like race with nine lives. The treatment that would kill many another bulb has but little killing power over them, so tenacious are they of life. How comes it, then, that they are still so uncommon in the collections of the ordinary flower-lover who can "run to" a greenhouse, great or small? A distinguished professor in a Scotch university, commenting on our British ignorance of German literature, said that it took a book a hundred years to cross the North Sea. The progress of the Nerines is equally slow. I would greatly like to see it accelerated. They are unable of themselves to "stump it and thump it and blow their own trumpet," so perforce it must be done for them. With fear and trembling I step in and take up a self-appointed and much-pleasure-giving task. How could it be otherwise after spending a day in the lean-to greenhouse at Colesborne, that cynosure of all Nerine-loving eyes; after absorbing the wonderful beauty of the king's magnificent collection; after hearing the master himself talk and explain and enthuse? The exquisite whiteness of Mrs. Clarke, the stately grandeur of Miss Moore in her beautiful orange rose dress, and the tall rosy carmine Mrs. Cooper were three that I will always remember. But what of the difficult pinks and pale shades, Lady Mary Shelley, Miss Shelley and many others? Then those wondrous roses and the charming rosy-tipped Mrs. Balfour, perhaps the most taking of all? Her beauty had faded, but not before it had been transferred to "canvas" by the deft hand of Miss Snelling.

There are two great types of Nerine flowers—the Guernsey Lily and the Madonna Lily shapes. The former is seen in the ancient Guernsey Lily, whose first home in Europe was with Morin in

Paris, and which ultimately reached England *via* Guernsey about the commencement of the second half of the seventeenth century; and in the large and handsome Fothergillii major or Rotherside, two modern gems of "purest ray serene." The latter and newer shape takes its outward form from pudica blood, and may be seen in such a one as elegantissima, which, newspaper reports say, was one of the prominent flowers

in Mr. F. Lilley's collection in the Royal Horticultural Society's Hall on October 24; but Mr. Elwes has many seedlings, and I have one or two myself in which this very pleasing shape is more pronounced.

The older or Guernsey Lily-shaped flower may be subdivided into the straight and the crinkled petalled forms, both of which are portrayed in the black and white sketch which accompanies this article. The young artist has caught the spirit of the Nerine, but it would take a coloured plate, and a good one at that, to do justice to the warm colours and delightful scintillation of these autumn flowers. The before-mentioned Fothergillii major, the old sarniensis and the very free *corusca* are samples of the straight-curved, strap-like segmented flower; and John Geoghegan (a fine Glasnevin seedling) and the brilliant, tightly knit together *Meadowbankii* samples of the crinkled ones.

Another subdivision might be made of the narrow-petalled varieties, such as Exhibition (Glasnevin), Lady Cadogan (Colesborne) and The Spider (Glasnevin). They provide a pleasant change from the broader petals, and they are especially graceful when used as cut blooms in vases. Much might be said about the flower-heads. In some varieties they appear to me to

be too loose and open; there is a hiatus in the centre, and the impression is conveyed of an untidy head of hair. Give me the compact ones, where Nature interlaces the many segments so that the whole makes one grand rich display which is, I think, satisfying to the most fastidious critic. Uriah Heep boasted that he was "the 'umblest person going." A Nerine might more truly say that, it is "the umbellest of

flowers," for "from every fair she bears the prize away" (*Gardiner's translation of Rapsin*).



TWO TYPES OF NERINES. THE STRAIGHT AND CRINKLED PETAL FORMS.

NOTES FROM A HAMPSHIRE GARDEN.

THE NEW ROSES OF 1913.

HAVING dealt with the Irish-raised Roses of 1913 in preceding articles, I pass to the English, Scotch and the Continental raised varieties. These I have reduced to a dozen varieties as representing the best of those that I have grown here. There are others, of course, but they are not sufficiently distinct or have some failing that rules them out. Of the English-raised Roses I am including both of the varieties raised by the Rev. J. H. Pemberton:

Danae, a Hybrid Tea, a vigorous perpetual-flowering yellow, pretty in the bud, the flowers, of medium size, blooming in clusters from June onwards, and perhaps at its best in the cooler days of the late autumn.

Moonlight, another semi-climbing pillar Rose, is of similar habit to Trier, which it also resembles in respect of its flowers, which come in small

clusters at the end of every shoot. Free flowering right up to Christmas here. Altogether a pretty and useful variety. It secured the gold medal of the National Rose Society; but of the two I think Danæe is to be preferred. Of other Roses raised in 1913 Scotland gave us

Mrs. Andrew Carnegie, raised by Messrs. Cocker and Son. This Rose has steadily improved with me, and while I prefer Florence Forrester, it is undoubtedly a good white, especially for exhibition purposes. The next Rose on my list comes from Jersey,

Duchess of Normandy, which is a yellow sport from Dean Hole, distributed by Mr. Philip Le Cornu. It is a pleasing shade of yellowish pink (more yellow than pink) in the open flower. Its buds often look a pale greenish yellow before opening, but develop all right. It is a decided acquisition, identical except as to colour with Dean Hole, with the same failings and the same good points. I now pass to the Continental Roses, and one naturally turns to M. Pernet-Ducher. Three of his Roses are distinctly worth growing. Two of them are to be found in most gardens where the owner is keen on Roses:

Mme. Edouard Herriot I need only name; its colour is its strong point, and with me it has proved very satisfactory. It is not quite so subject to black spot as some—I am afraid I must say most—of the Pernetiana group.

Willowmere, not such a startling colour, but a better-shaped flower, always reminds me of Lady Ashtown. It is a good grower and free flowerer, but (there is nearly always a "but") rather addicted to mildew. The third Rose is

Cissie Easlea, a well-shaped flower for garden purposes, Naples yellow in colour, round and globular in form, with very good foliage; a good grower and free flowerer. I have not yet seen mildew on this variety. Messrs. Soupert et Notting of Luxembourg sent out

Marie Adelaide Grand Duchesse de Luxembourg, a small but very pretty yellow buttonhole Rose, fine, long bud, with a nice perfume that can be recommended. It is quite a pretty flower, free, and makes a nice shapely bush. To those who want a big flower, useful for back rows in an exhibition box, I can recommend

Heinrich Munch (W. Hinner), soft pink in colour, very large and full. It is a Hybrid Perpetual with plenty of petals. A Rose of quite a different character is

Mevrow Dora van Tets (Leenders). This is a good deep crimson, the early flowers almost up to exhibition standard, but on the small side; excellent shape, but not many petals; very fragrant. An improved Richmond would perhaps best describe it. It is a Hybrid Tea that is certainly worth trying. My dozen must be made up with two of E. Turbat and Co.'s introductions—one a Polyantha Pompon, the other a Climbing Wichuraiana.

George Elger is the name of the first, quite a good yellow, golden in the bud, keeping its colour well, one of the best in its section of that colour; small, compact flower, well shaped, fairly free flowering, and makes a very neat plant.

Source d'Or is also a yellow of fair size for a Wichuraiana produced in panicles. The flowers fade with age, however. The growth may fairly be described as vigorous.

This concludes my 1913 Roses. The year 1914 brought us many good flowers, and I will deal with them in my next article.

Southampton. HERBERT E. MOLYNEUX.

UNDER THE "MAQUIS"

BY W. HERBERT COX.

THE Corsican "maquis" (of which I have given an account on page 525, issue October 28), though it seems to be almost impenetrable, has all kinds of beautiful plants growing under the shrubs, "where many a garden flower grows wild"; aye, and many we should like to have in our gardens, so rare are they. To botanists the island is famous for the number of plants,



THE CORSICAN ORCHID (ORCHIS PAPILIONACEA).

species and sub-species, quite unknown, or exceedingly rare, elsewhere.

Whenever there is a clearing the great Asphodels come up, so stately, but a considerable annoyance to the husbandmen. The two big ones, *cerasiferus* and the small-fruited *microcarpus*, are very common, but are often mistaken one for another. The many-branched smaller and slighter *fistulosus* is somewhat less common. Another troublesome weed is a plant which was, so our history books say, beloved by the ancient Britons—the Woad. Yet another noxious weed is the pretty Cape plant, *Oxalis cernua*, with its flat head of golden blossom; while everywhere comes up the quaint little Aroid, *Arisarum vulgare*, with its wagging tail in a monk's cowl. On the other

hand, three members of the same family may be found, but are very rare. They are *Dracunculus vulgaris* (the least rare), *Helicodiceros muscivorus* near Ajaccio, and the extraordinary *Ambrosini Bassii*.

In the Bevinca Valley, on the steep cliffs, the huge bulbs and unusual leaf growth of the Great Scilla (*Urginea maritima*) gave quite a character to the scenery; but the tall flower-spikes were not yet, only coming in August when the leaves have gone. Two other *Urgineas* are to be found, *fugax* and *undulata*, but only in the extreme south. The little blue *Scilla autumnalis* produces two varieties.

One of the loveliest sights are the masses of the beautiful *Pancratium illyricum* on Cape Sagro, washed by the rain and sprayed by the sea. It loves to blossom on sea cliffs facing north. Up the Cape generally it is easy in May to gather huge armfuls of the spider-like blossoms, white and so sweet scented, of this beautiful Lily; but on the rest of the island it is rather rare. The other *Pancratium*, *maritimum*, prefers the sands of the sea, and does not appear till August.

Unfortunately, I have not seen the wild *Pæonies*, but have heard that they paint the ground with their great crimson globes. The variety is *corallina*, the pink *pubescens* being found on the Cape, and *leiocarpa* in the south. The little *Crocus minimus*, with plain inner petals and flaked outer ones, masses everywhere in the hills. Another kind, *C. corsicus*, may be met with too, but is less common. The many-flowered *Colchicum neapolitanum* comes in September.

Like most of the Mediterranean region, Corsica is rich in bulbs. There are many *Alliums*, including three very pretty kinds, the pink *roseum*, the angular-stemmed *triquetrum* (both common) and the favourite *neapolitanum*, far less so. About half a dozen *Gageas* grow, but they are not easy to distinguish, *Solierolii* and *Grantatellii* being commonest. About Ajaccio, *Romulea Bulbocodium* forms dense mats, while above Bastia *R. Columnæ* sits on the vineyard walls untucking its blossoms; but there are many other kinds. The Madonna Lilies love stony corners, raising their spires above the rocks, and are frequent about Bastia. The scarlet *Lilium croceum*, too, is common, but *Martagon* is rarer. Though so frequent on the neighbouring mainland, neither Tulips nor Anemones are often found, except the ubiquitous mauve, *A. hortensis*, and its pretty white variety.

The great Holly-like *Helleborus corsicus*, with apple green blossoms, is everywhere. I also heard of a kind called *nitidus*, with purple blossoms and pink stems, which is said to grow in a few places on the island, nowhere else, though I can find no mention of it in any book. Peter Barr offered £50 to be informed of a locality; but my informant, who knew of one, declined the offer, proving himself a true flower-lover. The island suffers terribly from collectors for nurserymen. The very rare pink *Leucojum roseum* has been ruthlessly torn from its home on the Isles Sanguinaires, and a party went to the well-known locality of Helxine *Solierolii* and removed every particle. Fortunately, these two plants are known to have other localities, which are kept from collectors.

There are two other *Leucojums*, *longifolium* and *æstivum*. Never have I seen such sheets of *Narcissus Tazetta*. *N. serotinus*, too, may be met with in damp spots. Occasionally we see the pretty yellow *Aristolochia Clematis* hiding under the tall *Arundo* rods, and three other kinds, too, are to be found. Every wall seems to be draped with *Cyclamen*. All through the autumn the pink *neapolitanum* appears, and in the winter, before it has quite finished, the red *C. repandum* comes and continues on till summer. Also may be found six different kinds of *Ornithogalum*, and the Grape and Starch *Hyacinths*. *Iris Sisyrrinchium* is rare, but abundant where found. [By a happy chance an illustration of this *Iris* appears below.—ED.] Other *Irises* appear to be escapes, except *Pseudacorus* by the water. *Gladiolus segetum* is happy under the Olives, but *byzantinus* and *communis*, which prefer fields by the sea, are not so. A very pretty grey form of *Periwinkle*, *Vinca acutifolia*, is also happy under the Olives in earliest spring.

Perhaps the rarest plant on the island, where it only grows, is a *Columbine*. *Aquilegia Bernardii* is only found on the highest mountains; rarer still is its variety *Litardieri*.

Corsica is rich in Orchids, for it has been estimated that it has sixty-two kinds. The Pink Butterfly (*Orchis papilionacea*) is so prevalent everywhere that it is called the Corsican Orchid. The yellow *O. provincialis* is often to be found quite red, which is most unusual elsewhere. On the other hand, *O. insularis*, which is local to this island and a few others near, is always yellow. The first to flower is *O. lactea*, which comes in early February. Honey-scented, almost milk-coloured, with a lip with purple spots and a hood with purple lines, it is a delightful thing to meet so early in the year. It resembles *tridentatus*, but is much more solid in growth, which is distinctly unusual for a hybrid. The hybrid *Gennarii*, between *Morio* and *papilionacea*, is very frequent with its parents, which is very unusual for a hybrid. Not only is Corsica rich in varieties, but there are enormous numbers of specimens, several kinds growing together and forming beautiful Orchid gardens.

BOOKS

The Well-Considered Garden.*—The author of this pleasant and stimulating book is known to her many English friends as one of the forwardest and most enthusiastic of American amateurs in horticulture. The book is mainly devoted to the question of colour arrangement, a much-needed

consideration in beautiful gardening. Forty years ago, when the fine old perennials had been practically discarded in favour of the bedding out of summer flowers, these were used without any thought of colour harmony; the thing sought for was any kind of garish effect—scarlet, blue and yellow in concentric rings in round beds; scarlet, blue and yellow in straight lines at the edges of borders, or, still worse, in an unvarying wavy line of protracted boredom. Happily, we know better now, and the more thoughtful garden owners do honour to their flowers by a nobler use rather than debase them by common-place or vulgar arrangement. But it is well to remember that in addition to the great wealth of newer forms of garden flowers that

IRIS SISYRRINCHIUM

By R. IRWIN LYNCH, M.A., V.M.H.

THIS *Iris* is not usually regarded as very showy. It is very beautiful, however, when the sun shines to bring out the flowers, from about the middle of May to the middle of June. The species is variable, not always easy to grow, apparently, and some of the forms are not worth growing for ornament. I was therefore very fortunate some years ago in finding the present form, herewith illustrated, in the hills above Genoa. I brought home some bulbs which made a clump that flourished for about sixteen years,

and, if I remember rightly, it was only by accident that it came to an end. The present clump in the same position is formed of bulbs kindly sent me by Professor Penzig from the same locality, and it, I think I may say, has been improving for the three years of its existence. It is growing in ordinary gritty soil in a narrow border of the temperate house in the Cambridge Botanic Garden, facing nearly due south.

The accompanying illustration is from a photograph, for which I am indebted to my foreman of the outdoor department, Mr. F. G. Preston, and it gives a good idea of the number and effectiveness of the flowers. They are about 2 inches across, the falls about half an inch in width. In effect they are pale bright blue in colour, but the falls have a yellow spot, bordered with white. They are often fragrant, but unfortunately last less than a day, and in this fugacious character resemble the members of the genus *Moræa*, to which, in fact, this plant has been referred. It is, however, a true *Iris*, having a very definite tube, usually an inch long, while a *Moræa* is quite without a tube. The stems, it should be said, are from 2 inches to a foot or more in length, and the leaves are usually two, linear, and from 6 inches to a foot in length.

This species is one of the most interesting of all *Irises*, and is well marked among the bulbous kinds in the feature that the stamens adhere to the style branches. It



IRIS SISYRRINCHIUM. A PRIMITIVE SPECIES, THE ONLY EDIBLE IRIS

we owe to the enterprise and skill of raisers, there is still not one of the older summer flowers of the bad bedding days that may not be worthily used.

There is hardly a page of Mrs. Francis King's book that does not furnish an example of colour grouping that she has actually worked out and proved to be good; but the value of the book is not only in these actual examples, such as anyone can follow, but in their incitement to the contriving of other such combinations. For, the principle once assimilated, the delight of this kind of gardening will encourage the learner to go on and on—soon to discard the leading-strings altogether and to press forward with an assured progression, urged and sustained by his own initiative.

was regarded by Sir Michael Foster as one of the oldest of all *Irises* in point of evolution, retaining the archaic features of the stock, from which many *Irises* have descended. I believe I am right in saying that this is the only *Iris* known to be edible. The bulb is eaten by children in Spain and Portugal, and is known as the Spanish Nut and Barberry Nut. The plant is said to be largely used for fodder in Baltistan Kashmir. The species centres in the Mediterranean region.

One of the curious varieties I have grown is named *sicala*. It has tiny flowers, quite inconspicuous, and leaves from 3 feet to 4 feet long. *Iris maricoides* of Regel, native of the high mountains of Bokhara, has been referred to this species, but if, as stated, the filaments are free, it should probably be kept apart.

* "The Well-Considered Garden," by Mrs. Francis King. Published by B. T. Batsford, Limited, High Holborn, London; price 8s. 6d. net.

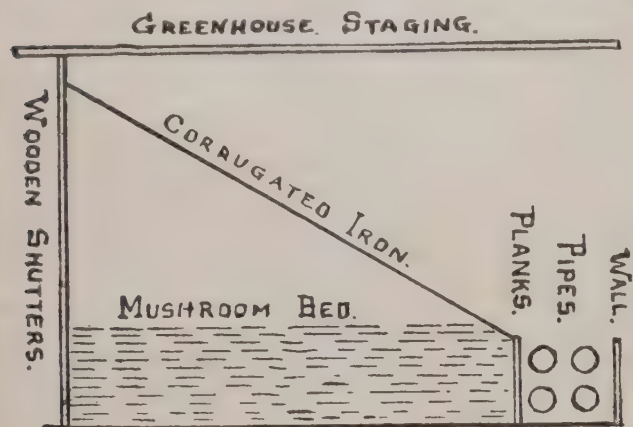
A SIMPLE WAY OF GROWING MUSHROOMS

MANY amateurs are at a loss to know where to make up the beds during the cold months, when outside culture is impossible. Cellars are often spoken of as being suitable places for this purpose. That good results follow the practice of growing Mushrooms in cellars there can be no

doubt, but the cellar cannot always be claimed for this purpose. There are other suitable places in many gardens which with a little preparation may be utilised for this purpose with equally good results. The space under the greenhouse stage is very suitable, also any moderately close, dark shed. When the latter is used, great care must be taken to prevent draughts, which are detrimental.

To prepare the available space under greenhouse stages is a simple and inexpensive proceeding. Place a few wooden planks in front of the hot-water pipes, should these be (as they frequently are) fitted parallel with the walls. Then fix up either corrugated iron or match-boarding to throw off the water which drains from the plants overhead when these are being watered. This should be fastened in such a position as to allow plenty of room for preparing the bed. This is easily done by placing the material used in an oblique direction from the front down to the planks by the pipes. A temporary rail may be nailed to the posts supporting the stage, and the sheets of iron slipped over this down upon the planks, the rail supporting one end, the planks the other. Then, to exclude light, shutters are fixed from the stage to the floor of the greenhouse. These may be kept in position by means of buttons, which are screwed on to the posts supporting the stage. It is better to have a succession of small beds rather than to begin with large ones.

SKETCH SHOWING HOW TO MAKE A MUSHROOM BED BENEATH GREENHOUSE STAGING.



How to Build Up the Beds.—Spread the manure evenly and build it up to the required height, treading it with the feet as firmly as possible as the work proceeds (it cannot be made too firm). Three or four days after the beds have been finished, drive a crowbar down from the top of the bed to within 3 inches of the bottom at distances of a foot apart. This is done to free the beds of any foul gases generated and to help to cool them down. In the course of from ten to fourteen days after forming, the beds should be ready for spawning. The way to find out when the bed is ready for spawning is to insert a bottom-heat thermometer into the bed

6 inches or 7 inches deep. This should be done a week after the bed has been formed, and the temperature watched daily. When first inserted the temperature probably will stand at about 80°, and may go up a few degrees higher; but after a day or two it will begin to fall, and as soon as it falls to 72° is the time to insert the spawn. In the absence of a bottom-heat thermometer an ordinary thermometer will do, burying it from 2 inches to 4 inches deep in the side of the bed near the top. The beds must on no account be spawned while the heat is rising. Spawning while the beds are too hot is fatal to success in Mushroom culture.

Spawning.—Before describing how to spawn the bed, a word about the spawn itself. In buying spawn obtain the best, as success or non-success depends on its quality. It should not be more than a year old, should be in a dry condition, and the tiny threads of spawn (the mycelium) running through the body of the brick of spawn should permeate the whole and be very fine in texture, of a dull greyish colour. If this thread-like mycelium is swollen and assuming a whitish appearance, the spawn is not so reliable. The spawn is sold in bricks, usually in sizes of 9 inches by 5 inches. Break these bricks by hand into ten equal pieces. Insert them over the surface of the bed at 8 inches apart and deep enough to allow of the pieces being covered over to the depth of a quarter of an inch by a handful of manure after they have been securely fixed in the bed. The holes to receive the spawn are best formed by a small hand fork or trowel. At the end of a week after spawning, the bed is usually ready to be covered with soil. The way to find out whether it is so or not is to examine a few of the pieces of spawn inserted. If a sort of mould is forming round them and slightly communicating itself to the manure, this is a sign that the spawn has commenced its function, and that in good time it will permeate the whole of the bed. The time has now come for casing the surface of the bed with soil. The best soil to use is loam cut from pasture land. It should be sifted through an inch mesh sieve. When the beds have once started bearing, the crop should be picked

twice a week, except in very cold weather, when once a week will be often enough, and the bed should remain in profitable bearing for six weeks or two months.

Gathering.—They should never be cut with a knife. Take hold of the Mushroom by the hand, or a cluster of them, give a gentle twist to the right and a pull, and Mushrooms, stalks and roots will come away easily. It is important to remove all the roots of the Mushrooms at the time of gathering, or they will decay and turn that part of the bed sour, to the detriment of those left. It is occasionally necessary to scoop them carefully out with an old knife, refilling the hole with mould at the same time.

Points to Notice.—The manure to form the bed must be fairly fresh and well sweetened by fermentation before being used, and should be on the dry side rather than wet.

Watering.—Mushrooms do not like too much moisture at any time; but in spring, early and late summer and autumn in fine weather they are much benefited by an occasional application when the surface of the beds appears to be dry. It should be applied through a rose, and the chill taken from the water in cold weather.

Covering the Beds.—The amount of covering needed will depend on the weather. When mild from 4 inches to 6 inches will suffice; while in the depth of winter, with, maybe, hard frost, 1 foot, with an additional covering of mats or tarpaulin, will be none too much. The fact must always be borne in mind that to secure growth in the Mushroom a temperature of from 52° Fahr. to 56° Fahr. must be maintained over the surface of the bed.

The Time to Expect Mushrooms after Spawning.—In this matter beds are sometimes very erratic. It occasionally happens that beds spawned in the autumn remain barren all the winter and afterwards give splendid crops in spring, so if the beds sometimes fail to yield a crop when inspected, be generous and give them time.

Spent Manure.—In considering the cost of growing Mushrooms in this way, it should be remembered that the fertilising qualities of the manure for garden and farm purposes are nearly as great when the manure is done with for this purpose as they were before.



MUSHROOMS GROWING IN AN OLD HOT-BED THAT HAD PREVIOUSLY BEEN USED FOR BEDDING PLANTS.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Flower Garden.

Roses.—The present is the best time in many gardens for planting Rose trees. The most suitable soil is a moderately heavy loam, yet by thorough preparation, including, when necessary, the adding of some heavy loam, most garden soils may be made suitable for Rose-growing. In addition to the removal of old, worn-out plants, which in most cases should be replaced with newer sorts, there is a welcome tendency to plant some of the beds devoted to summer bedding with permanent subjects, among which Roses worthily occupy first place. The introduction of the Hybrid Tea sorts may be said to have revolutionised the cultivation of the Rose to-day, and we have Roses practically perpetual flowering from June until October, and even longer should the weather permit. In fact, it is not unusual to cut a nice bunch of Roses outdoors on Christmas Day in sheltered gardens. When circumstances permit, planting a bed with one variety may be generally recommended.

Cuttings.—On a sheltered border outdoors and in a cold frame Rose cuttings can be inserted about this date. Prepare a bed of sandy soil outdoors, bury about half the cutting in the ground, working leaf-mould in the trench, and tread the soil firmly after inserting.

The Hardy Fruit Garden.

Currants and Gooseberries.—To keep up an adequate supply of vigorous bushes it is necessary to propagate a fresh stock from time to time. The present is a suitable period to insert cuttings on a sheltered border outdoors. Spread a thin layer of leaf-mould over the ground, to work in the trenches as the cuttings are inserted. Make the cuttings about a foot long, of this year's growth. Remove all but four or five of the top buds on the Gooseberry and Red and White Currant shoots, as these are best grown with a single stem. The Black Currant buds are left, as it is desirable for these to push up vigorous young growths from the base. To insert the cuttings, take out narrow trenches 6 inches deep, place coarse sand in the bottom, put the cuttings in this 6 inches apart, fill up with soil and tread firmly. The rows may be a foot apart.

Plants Under Glass.

Hardy Shrubs for Forcing.—Those who have charge of large show houses know how valuable hardy shrubs are to keep the houses bright from January onwards, when the loss of the Chrysanthemums is keenly felt. Some are better established in pots, the Wistaria, for instance; others can be lifted from the open ground, potted up, forced into flower, and then returned again to the open ground. The list of subjects which lend themselves to this treatment is a lengthy one, but only a few of the best can be mentioned here. They include *Deutzia gracilis*; *Rhododendrons præcox*, Cunningham's White, *sinense* (*Azalea mollis*) and *Rosa Mundi*; double-flowering Peaches, *Pyrus floribunda*, Lilacs, Wistarias, Forsythias, *Spiræa Van Houttei*, *Staphylea colchica* and *Philadelphus Lemoinei* erectus. The present is a suitable time to lift and pot these shrubs. As most of them will not remain in the pots more than six months, space need not be left for new root growth; thus pots comparatively small for the size of the plants can be used. Plunge the pots to the rims in ashes in a sheltered corner outdoors, soak with water when in position, and from here the plants can be introduced gradually to heat as required.

Winter-Flowering Zonal Pelargoniums.—The plants rooted from cuttings during March and April should now be flowering freely. For rich colours the "Geranium" is still unequalled in the greenhouse during the winter. Light is essential for their successful culture during the short, dull days, in view of which place the plants on the south side of the house and as near the roof glass as convenient. To prevent damping, maintain sufficient heat in the hot-water pipes to keep the atmosphere of the house moderately dry, another valuable aid being to ventilate

freely on all favourable occasions. Water carefully, keeping the soil in the pots, if anything, on the dry side rather than too wet. Encourage continuous flowering by giving applications of weak liquid manure or mixing a little fertiliser in the water.

The Kitchen Garden.

Broad Beans and Peas.—Where an early crop of these vegetables is desirable, seeds may be sown in a sheltered part of the garden where the soil is light, warm and well drained. In gardens where the soil is heavy and wet, it is a waste of labour, but it is worth while doing when there is some prospect of success. Choose early round Peas, such as Bountiful and Improved Ringleader, and Bean Prolific Longpod.

Kew.

A. OSBORN.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Forcing Asparagus.—This is one of the easiest vegetables to force, and a good dish of it in winter is usually much appreciated. Dig up a portion of the oldest matured crowns and place them in a pit where a little fire-heat can be obtained. If it is possible to get a pit where a depth of leaves or fermenting material can be placed, the conditions for successful forcing will be much simplified. Tread the leaves firmly together and place over them an inch or 2 inches of soil; then pack the roots closely together, and cover with a thin layer of finely sifted soil. This should be watered in so that the soil gets washed down among the roots. When the crowns begin to show signs of growth a few inches of sifted leaf-mould may be placed on the surface, which will hasten growth and also blanch the shoots. The same bed may serve for several batches if a little fresh fermenting material is added when putting in fresh roots.

Herbs.—If fresh green herbs are required through the winter, a bed constructed on the same lines as advised for Asparagus should be prepared. Roots of Tarragon and Mint force readily and are in demand in most establishments. Regular supplies of moisture should be afforded, so that growth will be continuous.

Cauliflowers.—Young Cauliflower plants sown in August and intended for the earliest crops next season should now be removed from the open ground and pricked out on a sheltered border where sufficient protection can be given through the winter. These plants are all the better if they can be protected with glass, but they must not be coddled. If given an ordinary frame they are sure to make soft and premature growth before the season arrives for planting out. Sashes supported on posts and rails give sufficient protection.

The Flower Garden.

Violas.—The old plants should be lifted from the beds and laid in lines in the nursery garden. In the event of a scarcity of young rooted cuttings at planting-time, these will prove useful if broken up into small tufts.

Carnations.—The remainder of the layers should be detached from the parent plants and laid in where they can have glass protection during severe weather. A few hardy varieties may be either left where they are till required in spring or planted closely in lines on a spare piece of ground where they can be protected from vermin with wire-netting. This protection is necessary in most places, as pheasants and rabbits are very partial to a feed of Carnations. Plants put out in their flowering quarters last month will also need protection from vermin. A 3-foot wire-netting placed round the beds will generally prove sufficient, as pheasants seldom possess enough intelligence to fly over.

Violets in Frames.—These should be kept well ventilated, both day and night, during mild weather. Remove decaying foliage, keep them free from weeds, and stir the soil occasionally between the plants. Sprinkle soot between the lines if slugs are troublesome.

Cuttings in Frames.—The cuttings of summer bedding plants that have been rooted in cold frames should be kept freely ventilated, and

remove any mouldy foliage to prevent decay among the young plants. Pinch the points out of any forward cuttings to keep them dwarf and stocky.

The Rock Garden.—From time to time it is necessary to look over the rock garden and remove fallen leaves that have got blown in, for if these are allowed to remain they will soon destroy the plants on which they are deposited. Some of the choicer small alpine, while hardy enough to stand the most severe cold, are liable to decay under damp or foggy conditions. These should, if possible, be given a position where overhanging stones will keep their surroundings moderately dry. It may be found necessary to cover some with sheets of glass or remove the plants entirely to a frame for the winter.

Plants Under Glass.

Helleborus niger.—Clumps of this Christmas Rose may now be lifted, planted in pots or boxes, and placed under glass to provide clean and early flowers. Disturb the roots as little as possible, and do not subject the plants to a high temperature.

Callas.—A few of the most forward of these should now be placed in a warm house to provide flowers for Christmas. Give liberal supplies of weak liquid manure, and keep the plants as near the glass as possible.

Eucharises.—These, having been partially at rest during the autumn, should now be induced by a little more heat and moisture to throw up their flower-spikes for Christmas, when white flowers are in demand. If in well-drained pots they require liberal supplies of water. When in active growth, soot added to the water gives a deep green colour to the foliage.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

ANSWERS

TO CORRESPONDENTS

TREES AND SHRUBS.

FLOWERING SHRUBS FOR A NORTH WALL (B. E. T.).

—The following climbers and wall shrubs are likely to suit your purpose. The colour of the flowers in each case is given. *Jasminum nudiflorum*, flowers yellow, borne from November to February; *Cydonia japonica* var. *cardinalis*, flowers dark red, January to June; *Ceanothus rigidus*, flowers violet blue, April and May; *C. Veitchianus*, flowers blue, May; *Veronica Hulseana*, flowers lilac, summer; *Clematis montana rubens*, flowers deep rose, May; *Ceanothus Gloire de Versailles*, flowers blue, July to October; *Rosa bracteata*, flowers white, August and September; *Abelia grandiflora*, flowers white with pink tinge, July to October; and *Myrtus communis*, flowers white, August.

SHRUBS FOR EFFECT (H. P. M.).—The following shrubs and small trees are likely to suit your purpose. Trees and tall-growing shrubs: *Paul's Double Scarlet Thorn*, *Crataegus Carrièrei*, *Laburnum alpinum*, *Prunus serrulata* James H. Veitch; *Lilac Marie Legraye*, white; *Lilac Charles X.*, deep red; *Philadelphus coronarius*, white; *Forsythia suspensa*, yellow. Dwarf shrubs: *Daphne Mezereum*, 2 feet to 3 feet, red, February and March, variety *alba* has white flowers; *Forsythia viridissima*, 3 feet to 4 feet, yellow, April; *Ribes sanguineum atrosanguineum*, 4 feet to 5 feet, red, April; *Spiræa arguta*, 3 feet to 4 feet, white, April; *Viburnum tomentosum plicatum*, 4 feet to 5 feet, white, June; *Diervilla Eva Rathke*, 2 feet to 3 feet, red, summer; *D. Abel Carrière*, 4 feet to 5 feet, deep rose, May and June; *Cytisus præcox*, 4 feet, cream, May; *Cotoneaster rotundifolia*, 4 feet to 5 feet, bears red berries freely, which last throughout the winter; *Spiræa Anthony Waterer*, 2 feet, red, July to September; *Escallonia philippiana*, 3 feet, white, July; *Cydonia Maulei*, 2 feet, April, red; *Ceanothus Gloire de Versailles*, 2 feet to 3 feet, blue, July to October; and *Hypericum Moserianum*, 1 foot, yellow, July to October.

ROSE GARDEN.

BLACK SPOT ON ROSES (A. S.).—The black spot on the Holly is in all probability due to the attack of a grub, while the Sycamores are attacked by the fungus *Rhytisma acerinum*. Neither is the same as the attack on the Roses, which is due to *Actinonema Rosæ*. This is a difficult pest to deal with and calls for close attention to keep it in check. In addition to the collection of dead foliage, on which the fungus certainly lives during the winter, and the careful spring pruning which your Roses no doubt receive, spraying with Bordeaux or Burgundy mixture is called for. This should be started as soon as the growth commences in spring, and be repeated at intervals of about three weeks or a month through the growing season.

FRUIT GARDEN.

RIPE GRAPES AND HEAVY COLD WHITE MISTS IN EARLY SEPTEMBER (F. F. McK.).—The best thing to have done under such conditions would have been to have reduced the ventilation considerably (but not closing the ventilators) and to have added a little heat to the hot-water pipes. This would have secured a good circulation of air and the dissipation of the mist.

POT VINES TO TEMPORARILY REPLACE PERMANENT VINES REMOVED (F. F. McK.).—It would be interesting, no doubt, to do this; but the labour entailed in watering for many months would be heavy and arduous. Moreover, the constant watering of the pot Vines would saturate the permanent border and tend to sour it. The crop obtained would not be heavy and of no great value, and the Vines would be of little or no use after the first year's cropping. Figs generally succeed very well on the back wall of vineries, especially if the vineries are what are termed "hipped back" (quarter span at the back).

GRAPES NOT COMING TO MATURITY (John Dryden).—The berries were smashed to a pulp in transit, so we could not make much of them. The cause of your failure must, we think, be attributed chiefly to overcropping. Be satisfied next year with little more than half the number of bunches, and you will find they will mature and colour all right. Nothing can be done to improve them this year. The berries of Madresfield Court were also smashed up, and we could make nothing of them. Please send another sample.

GRAPES TO GROW WITHOUT FIRE-HEAT (Enquirer).—The following varieties of Grapes can be grown well in most seasons without fire-heat, provided the person in charge of them understands his work, especially in husbanding and making the best use of sun-heat: Black Hamburgh, Black Alicante, Black Muscat (Madresfield Court), Buckland Sweetwater and Foster's Seedling. Vines do not succeed so well grown under these conditions as do Peaches. To crop Vines lightly during war-time and scarcity of labour.—A short rest for a year or two in the way you suggest would do your Vines much good and cause them to bear better crops afterwards.

BLACK DEPOSIT ON PLUM LEAVES (H. R. R.).—The black deposit on the foliage of the Plum is due to the growth of a fungus belonging to the genus *Fumago*. This fungus lives on the honeydew excreted by aphides, not at the expense of the plants, although it, of course, interferes with the proper performance of its functions by the leaves. The thing to aim at is the destruction of the aphides, which may be brought about in another season (it is too late to do anything now) by spraying, as soon as the first signs of the pest are to be seen in spring, with Quassia and soft soap, or with a nicotine wash. If this is done thoroughly as soon as the pest appears, the spraying will keep the trees free from both aphides and fungus.

KITCHEN GARDEN.

SEED POTATOES WHICH DO NOT DECAY (W. J. Phillips).—A seed Potato naturally becomes exhausted and decays from the effort it makes to start the eyes into growth and to support them afterwards until strong enough to support themselves. A Potato that does not decay has lost this power, at any rate to the same extent; hence the produce from it is small or none at all. As to the reason of this sterility, no special cause can be assigned. Exposure to severe frost will cause it; absence of eyes will also do so. In order to prevent loss from this cause, the best way is to start your seed Potatoes slowly in single layers in shallow boxes in spring, so that they are well chitted before planting. Barren seeds are then discovered and losses prevented. Notwithstanding your experience, it is a good plan to expose seed Potatoes to sun and air for a few days until they are slightly greened before storing.

MISCELLANEOUS.

FUNGUS FOR IDENTIFICATION (H. A. Wadworth).—The fungus sent is not a true Truffle, but one of the smaller Puff-balls, a species of *Lycoperdon*, which grows on the surface of the ground, not underneath as does the Truffle. It belongs to an entirely different group of fungi, and though probably edible when in the very young state before any formation of coloured spores inside takes place, is likely to be much less palatable than the Truffle.

RED VERONICA SPORT (Mrs. Busy Bee).—The specimen of red-flowered Veronica sent for examination is almost sure to have originated as a sport from the purple-flowered plant from which the cutting was taken. It is a variety of *V. speciosa*, which is a very variable species, producing numerous varieties with blue, purple, rose, and red flowers of various shades. We have seen varieties almost, if not quite, identical with the one you sent. It is quite likely that the colour will be retained by the young plants you raise.

NAMES OF FRUIT.—C. R. L.—A, Court Pendu Plat; B, Dr. Harvey; C, Capiaumont; D, Doyenné du Comice; E, not recognised.—G. H. N.—The larger fruit is King of the Pippins; the other, Allington Pippin.—E. L. M. J.—1, Bess Pool; 2, Herefordshire Beefing.—"Pomona," Hagley.—Bramley's Seedling.

NAMES OF PLANTS.—Glenbrook.—1, *Convolvulus tenuissimus* has entire basal leaves and divided stem leaves—the pieces sent are both *C. tenuissimus*; 2, *Heeria elegans*, a Mexican plant.—J. M.—Costmary (*Tanacetum Balsamita*).—M. T. P.—*Rosa rugosa* var. *alba flore pleno*

SOCIETIES

ROYAL HORTICULTURAL SOCIETY.

THE fortnightly meeting held on November 7, if small by comparison with others preceding it, was full of interest and variety. Chrysanthemums were very fine and admirably displayed. Orchids were of special merit and attractiveness. Nerines, Ferns, Carnations and Begonias afforded variety and rendered seasonable an autumn meeting.

ORCHID COMMITTEE.

Present: Sir Jeremiah Colman (chairman), and Messrs. J. O'Brien, W. Bolton, H. J. Chapman, C. J. Lucas, W. H. White, Charles H. Curtis, H. G. Alexander, J. Cypher, J. Charlesworth, Walter Cobb, T. Armstrong, E. R. Ashton, A. McBean, Pantia Rauli, F. J. Hanbury, R. Thwaites, J. Wilson Potter and R. A. Kone.

Messrs. Charlesworth and Co., Hayward's Heath, displayed a delightful lot of Cattleyas, *Lælio-Cattleyas* and *Brasso-Cattleyas*. In the latter, B.-C. Queen Alexandra was particularly good, two fine forms being shown. Of *Lælio-Cattleyas*, a fine form of *Salonica* was shown, the great spread of its flowers and the well-marked lip of ruby purple, with yellow base, rendering it conspicuous. L.-C. *Mimidia*, chrome yellow sepals and heavily reticulated lip of gold and reddish scarlet, was also very good. *Cattleya Folia alba* was also noted.

Messrs. J. Cypher and Sons, Cheltenham, displayed beautiful and well-grown *Cypripediums*, among many others. Some of the best were C. Rosette (a glorified C. Maudiae), C. Gaston Butteel (reddish chestnut), C. Sanctus (yellow and white, very fine), C. Sir Kedvers Bullen (brown slipper, with heavily spotted rose and crimson dorsal sepal), C. The Baron and C. Queen Alexandra (whose big dorsal sepal of crimson and white is very fine). C. *Friam*, C. *litus* superba and C. *Leeanum* magnificent were also on view.

Sir Jeremiah Colman, Gatton Park, had *Cattleya Gatton Ruby* and *Lælio-Cattleya Epicasta* var. *gloriosa*, both very fine.

Messrs. Sander and Sons, St. Albans, had a series of *Cattleya Folia alba*, some fifty plants in all, which made a superb show of this invaluable winter sort, the white sepals and petals and rich-coloured lip with golden side being in fine contrast. *Cattleya Katie* (greenish yellow sepals and red lip), C. *Hardyana*, and the pretty white-flowered, sweetly scented *Trichosma suavis* were also on view. It has a most graceful perfume.

Messrs. Armstrong and Brown, Tunbridge Wells, showed several choice novelties. Of *Odontoglossums*, O. *Phuo* was very finely blotched. O. *Kolfez* carried a big raceme of its yellow and white flowers. *Lælia pumila alba*, a seedling raised from its own pollen, was of superb form and purity, and commanded immediate attention. *Cattleya Saturn alba*, C. *O'Brieniana alba* and C. *Claesiana alba* were all chaste and beautiful, and formed a pretty centre to the whole. Quite interesting were well-flowered pots of *Maxillaria picta*, *Lælio-Cattleya luminosa* with five giant flowers making a big show. *Cattleya Venus*, yellow sepals and wide-spreading, ruby crimson lip with gold lines, was also good.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. E. A. Bowles, J. Green, W. J. Bean, G. Reuthe, J. W. Moorman, R. Hooper Pearson, J. Heal, J. F. McLeod, W. H. Page, J. Jennings, C. R. Fielder, J. Dickson, C. Dixon, H. Cowley, A. Turner, Charles E. Shea, C. E. Pearson, W. P. Thomson, E. H. Jenkins, W. G. Baker and J. Hudson.

Messrs. Stuart Low and Co., Enfield, staged a table of winter-flowering Begonias and Carnations. Of the former, Mrs. J. A. Peterson, of the *Gloire de Lorraine* type, with coppery leaves and full of rose carmine flowers, was most effective in foot-high plants. Turnford Hall (white), Clibran's Pink, Bowden Beauty, Emita, Scarlet Beauty, Optima and Mrs. Heal were all well staged. Of Carnations, Pink Sensation, Winter Perfection, Encantress Supreme and British Triumph were all good.

Messrs. Blackmore and Langdon, Bath, showed the new single Violet Governor Herrick, a handsome sort of reddish purple tone with white eye, quite distinct from Princess of Wales. *Ascania* and *La France* were also on view. Those named represent the largest of the single sorts, and are of especial merit. Winter-flowering Begonias of the sempervirens or allied class were also shown. *Virginalis* (white), *Carmen* (red), *Pink Beauty*, *Rosea Superba* and *Brilliant* were noted.

The Misses Hopkins, Shepperton-on-Thames, showed a few hardy plants, with *Gentianella* in flower.

Mr. G. W. Miller, Clarkson Nurseries, Wisbech, showed Chrysanthemums and some hardy flowers, the latter including Primroses in variety, *Viola cornuta* The Clarkson, Christmas Roses and Polyanthus in variety.

Mr. G. Reuthe, Keston, Kent, showed interesting hardy plants, tree, shrub and alpine. *Fagus Cunninghamii*, *Eucalonia oregana*, the Parsley Fern (*Allosorus crispus*), *Buddleia auriculata* (white flowered) and *Myrtus bullatus* were noted. *Crocus ochroleucus*, C. *Marathonisus* and C. *Clusii* (mauve) were very beautiful. Nerines were very fine, a central mass of N. *coruscans* being very striking. N. *Jewel*, N. *Rosy Morn*, N. *flexuosa alba*, N. *Stena* and N. *pu dica*, the last one of the parents of the modern set, were nicely shown. As evidencing what is possible with frame culture for these plants, the exhibit was of more than ordinary interest. Sprays of *Lapageria* from the open ground were also on view.

Messrs. John Waterer, Sons and Crisp, Bagshot and Twyford, showed cut shrubs to demonstrate leaf colour at this season—*Vaccinium pennsylvanicum* (rich scarlet),

Quercus coccinea Waterer's variety and *Forsythia viridissima* (bronze, orange and crimson). *Acer palmatum septemlobum* Bagshot variety is most brilliant. Other noteworthy subjects included *Azalea pontica* and the berried *Pernettyas* in red, white, rose and scarlet.

Mr. George Kerswill, St. Thomas, Exeter, again staged a brilliant lot of *Gentiana acaulis* blooms, which shows the genial conditions of the district for this subject.

Messrs. Allwood Brothers, Hayward's Heath, showed Carnations excellently. *Benora* (white fancy) was very fine. *Bishton Wonder* (mauve heliotrope and very fragrant) was in fine condition. *Triumph* (crimson), *May Day*, and *Nancy* (pink) were also excellent.

Messrs. J. Cheal and Sons, Crawley, showed cut shrubs and trees, *Liquidambar styraciflua*, *Arbutus Croomei*, *Azaleas* in variety, with well-coloured foliage, *Quercus palustris*, Q. *coccineus splendens* and *Berberis Thunbergii* being among the more notable.

Messrs. Godfrey and Sons, Exmouth, Devon, showed a table of single Chrysanthemums raised from seed sown last spring. Mrs. W. J. Godfrey (quite the best pink), Western Queen (Anemone-centred, pure white), Reginald Godfrey (best apricot bronze), Miss Bengough Clark (rose pink, very fine) and Miss Smollet Campbell (cherry crimson) being the best in a particularly fine lot.

Messrs. Barr and Sons, Covent Garden, showed a nice series of Nerines, Miss Shelley (pink), Brenda (cherry red), Pink Beauty, Vivid, Mr. Willoughby (white, pink flushed), Cerise (of almost amaranth red tone), Venus (pink) and Vanessa (white, flushed pink, with carmine stripe) being among the most distinct. Mrs. H. J. Elwes (coral pink, with waved segments) was one of the more distinct.

Messrs. H. B. May, Edmonton, contributed a table of Ferns, Begonias and *Primula obconica* in variety. Hardy Ferns were especially noteworthy, *Polystichum aculeatum pulcherrimum gracillimum* Druryi being one of the most notable. Varieties of *Polypodium vulgare* were in great variety.

Messrs. W. Wells, Merstham, exhibited a grand lot of Chrysanthemums, arranging a great centre of some three dozen blooms of the white-flowered *Louisa Pickett*, one of the best exhibition varieties. Gem (single white), Max (chestnut red), Crimson Velyet, Mrs. J. A. Jones (white, flushed pink), Supreme (crimson maroon), Cranfordia, Yellow Jewel, H. W. Thorp, R. B. Burge (single white) and Bertha Farris (bronze) were among the best in a superb group.

Messrs. H. J. Jones, Lewisham, showed Chrysanthemums well, employing big stands of Mrs. Tofield (red), Mrs. R. C. Pulling (yellow), Frank Ladds (golden) and Bob Pulling (the best golden), together with single and decorative sorts in the foreground.

Messrs. Piper and Sons, Bayswater, contributed a collection of shrubs in pots, *Crataegus Lelandii*, *Berberis brevipaniculata*, B. *Gagnepainii*, B. *Wilsonii*, B. *nepalensis*, together with *Pernettyas* and other seasonable subjects. *Berberis japonica Bealii* was also fine.

Berberis Julianæ and B. *Sargentiana*, the latter probably the most ornamental of all the evergreen set, were shown by the Hon. Vicary Gibbs, Aldenham.

FRUIT AND VEGETABLE COMMITTEE.

Present: J. Cheal, Esq. (chairman), and Messrs. W. J. Jeffries, W. Bates, E. Beckett, W. Pope, W. Bullock, E. Harriss, J. Jaques, E. A. Bunyart, Owen Thomas, W. E. Humphreys, P. D. Tuckett, A. R. Allan and A. W. Metcalfe.

The Hon. Vicary Gibbs, Aldenham House (gardener, Mr. E. Beckett), showed six varieties of Celery and three of Leeks. Of Celery, Invincible White, Sulham Prize Pink, Superb Pink, Aldenham White and Aldenham Pink were included. The Leeks were Prizetaker, Royal Favourite and Improved Musselburgh.

Messrs. Daniels Brothers, Norwich, showed a new seedling Apple, Norvic, which from appearances promises well.

LEGAL POINT

OVERHANGING BRANCHES.—Will you kindly tell me what is the legal aspect of the following case? My neighbour's Pear tree hangs over my garden fence some yards; am I within my rights in lopping off the overhanging branches? Must I give him any notice prior to doing it?—AMICUS. ["Amicus" is within his rights to lop off the branches which overhang his garden. It would be courteous on his part to ask his neighbour to cut off the overhanging branches, as otherwise he might complain of the manner in which "Amicus" did the work, or of his doing it at the wrong season. If "Amicus" does not receive a satisfactory reply from his neighbour, promising to do the work within a reasonable time, he will then be quite justified in removing the offending branches.—ED.]

The War Office notifies that from now onward all papers posted to any neutral European country will be stopped except those sent by publishers and newsagents who have obtained special permission from the War Office. Such permission has been granted to THE GARDEN, and subscribers who send to friends in Denmark, Holland, Norway, Sweden, Switzerland, Spain, Portugal, Greece, and Roumania should order copies to be despatched by the Publisher from 20, Tavistock Street, Covent Garden, W.C.

** The Yearly Subscription to THE GARDEN is: Inland 6s. 6d.; Foreign 8s. 9d

THE GARDEN.

No. 2348.—Vol. LXXX.

NOVEMBER 18, 1916.

NOTES OF THE WEEK

OWING to the scarcity of Apples and Pears the thoughtful gardener will turn his attention to other crops for use in winter and spring. In this direction there is nothing more useful than Rhubarb, which may be forced with the greatest ease in greenhouse, shed or frame. The thoughtful cottager, too, will soon start to hasten the growth of Rhubarb in the open, choosing a border facing south and, for preference, against a wall or fence, covering the roots, after planting, with boxes, barrels, or even large chimney pots—anything, in fact, that will cover the roots and allow sufficient headroom. The boxes are then surrounded, or partly so, with long, strawy manure and leaves, the bottom of the box being taken out and used as a lid, for the purpose of inspecting the growing crop.

The Cottager's Wife and the Vegetable Supply.—In the absence of the cottager, his wife may easily carry out the foregoing method of forcing Rhubarb. As a rule, the cottager's wife spends little time in the garden, but, where possible, she should be encouraged to carry on the good work of growing useful household vegetables. In many homes the gardens are sadly neglected. A pity it is so. If people with influence in our country villages would only advise and encourage the wives of soldiers to cultivate their gardens, it would do much towards increasing the food supply of the nation.

The Pelican Flower (*Aristolochia gigas* var. *Sturtevantii*).—This remarkable plant is flowering on and off throughout the autumn in the Victoria House at Kew. Some of the largest flowers are over 16 inches across and 22 inches long, with an astonishing twisted and tapering tail upwards of 3 feet in length. This tail-like appendage forms a convenient ladder by which insects may reach the flower. The mouth of the tube of the flower is velvety purple, the remainder of the flower being creamy yellow, mottled and veined with purple. The interior of the floral throat is lined with hairs turned downwards, so that it is easy for insects to enter, but, once inside, extremely difficult for them to get out again. The flowers do not last long when fully expanded, and they emit a most offensive odour.

The Royal Horticultural Society's Hall.—We understand that the Royal Horticultural Society's Hall has been commandeered by the War Office on the understanding that the War Office will provide a suitable hall in Westminster for the society's fortnightly exhibitions. Up to the time of going to press no other hall had been approved, so that until further notice the fortnightly meetings and

exhibitions will be held in the society's hall as usual.

Acer Pseudo-platanus atropurpureum.—This is undoubtedly the most beautiful of the now fairly numerous varieties of the Mock Plane, and is much superior to *A. P.-p. purpureum*. In fact, the colouring of the under side of the foliage of the variety under notice is more of a blood red than a purple, the upper side of the leaves being only a little less bright in colour. The slightest breeze unfolds the hidden beauty of the tree. Its only defect is that it is not a free grower,



THE GIANT ARISTOLOCHIA IN THE VICTORIA HOUSE AT KEW.

and should therefore be planted in the foreground among other ornamental trees.

The Autumn Crocuses.—In sheltered places in the garden much more use should be made of the beautiful autumn Crocuses. Naturalised in weak grass, planted among the Mossy Saxifrages in the rock garden and borders, and in the Fern borders, their bright colours light up the dull days of late autumn and early winter. The bulbs thrive in most garden soils, and once planted need little further attention. Six of the best to naturalise, and which can be purchased in quantity at a reasonable price, are *C. pulchellus*, lavender

blue; *C. speciosus*, bright blue; *C. longiflorus*, soft rosy lilac; *C. asturicus*, pale mauve or lilac; *C. zonatus*, rosy lilac; and *C. Salzmannii*, lilac.

Cotoneaster frigida.—Of the stronger-growing Cotoneasters this is perhaps the best, for it grows into a very large bush, or sometimes a small tree, and rarely fails to fruit freely, the branches from late September onwards being laden with large clusters of bright red fruits. Moreover, it is more attractive when in flower than many of the Cotoneasters, the flowers being creamy white and produced in large heads. Although a deciduous species, the leaves are often retained until well on into winter, and after a mild autumn it not infrequently happens that many leaves are left until January. The fruit also remains until well on into the New Year if not troubled by birds. It is a Himalayan plant, and succeeds in a light and sunny position in good loamy soil.

Oxalis lobata at Wisley.—Situated in the moraine of the famous rock garden at Wisley, this beautiful Oxalis has been the means of providing a bright touch of colour for the past two months. Many of our readers are aware that this plant recently received an award of merit from the Royal Horticultural Society. At the time doubt was entertained as to its hardiness, but the behaviour of the Wisley plants throughout the recent cold weather tempts us to place the facts on record. During the latter part of the week ending October 21 very severe frosts were experienced; many so-called hardy shrubs being denuded of foliage. On the grass as much as 13° of frost were recorded, and such subjects as *Saxifraga Fortunei* were killed outright. The Oxalis, although in a semi-sheltered spot, remained unaffected, and is still a picture of beauty, the flowers an inch across and of a brilliant yellow colour.

"Colour Standards."—Mr. C. Harman Payne points out that a slight correction is necessary in the article under the above heading by "D. F. K." on page 541, issue November 4. The "Répertoire de Couleurs" was not published by the Chrysanthemum Society of Paris, but by the Société Française des Chrysanthémistes of Lyons. It may not be generally known that there was a movement on foot among the society's members to issue a pocket edition of the Répertoire; but as there have been no meetings of the Congress since the war began, the proposal has not got much further than the initial stage.

* * * Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.

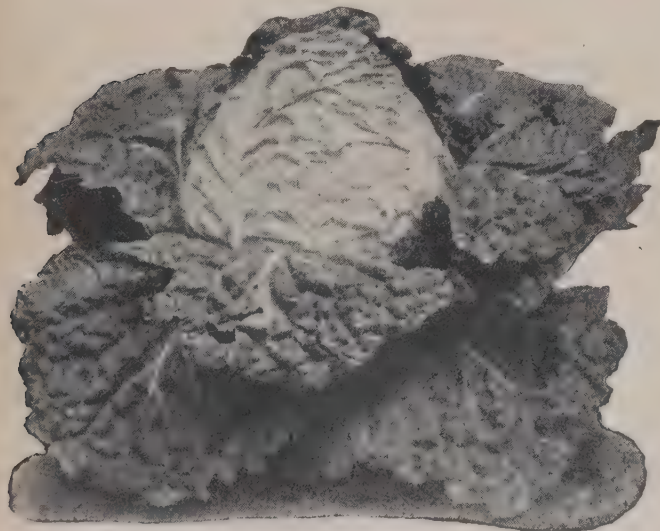
CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Crocus speciosus var. Artabir.—Although paler in colour than the ordinary *C. speciosus*, as Mr. Bowles remarks in his charming notes on page 527, issue October 28, this variety is a handsome form. I have had it for a few years now, having procured it from Mr. Van Tubergen when it was first offered. It is a truly handsome autumnal Crocus, and one of the best of the forms of *C. speciosus*. Mr. Bowles has some lovely white varieties of *C. speciosus*, by the way, one of which he sent me as his "best white" being now in flower and very beautiful, though, alas! not having much chance of showing its real charms, owing to the tempestuous weather and persistent rainfall.—S. ARNOTT.

Michaelmas Daisies.—We note the correspondence on these very beautiful flowers, and there is certainly nothing to equal them for the border in the autumn. They are also very decorative when grown as pot plants, and we are rather surprised that they are not grown more in this way, especially the *ericoides* type. We think it far better to plant them in the autumn, as your correspondent suggests, and they certainly do particularly well in a heavy soil or where the soil is inclined to heaviness. The advantage in thinning the growths is that the plants do not become so thick, and give a lighter appearance when they are in flower. We have never found by doing this that the size of the flowers is increased to any extent, if at all. One mistake frequently made in replanting is that the outside of the clumps is cut off and sometimes thrown away, and the middle portion planted again. But it will be found that the outside portion will do far better than the congested centre of a clump.—W. CUTBUSH AND SON.

Savoy Cabbage Earliest of All.—This is a remarkably early little Savoy that I can recommend to all who value dainty vegetables on their table. I tried it from Messrs. Sutton and Sons some few years back and it remains, and will remain, on my regular list. We turn to it in early autumn as a relief from a somewhat lengthy diet of Runner Beans. I know of no Cabbage that turns in with such remarkable rapidity. Planted this year in July, it had a spell of dry weather to contend with at first; but no sooner did we have a showery time than it made speedy and useful growth, maturing firm little Cabbages in record time. It goes without saying that this quick growth means tenderness



THE FIRM LITTLE SAVOY CABBAGE
EARLIEST OF ALL.

and succulence, and no Cabbage that appears on our table throughout the year is more enjoyed and appreciated.—F. HERBERT CHAPMAN.

Bees and "Red-Hot Pokers."

—It is no new matter to find dead bees in the faded flowers of the Red-hot Poker or Torch Lily, although it does not appear to be generally known. The bees evidently enter the long tubular flowers in search of nectar, and then, owing to the tight fit, find it impossible to get out again. Each of the faded flowers in the accompanying illustration contains a dead bee, some of the flowers having been cut open in order to show the imprisoned bees. It has been suggested that the reason why bees find their coffin in such flowers is only when the flower is beginning to fade and loses its elasticity, that the bee, having forced its way in, is killed by the natural contraction of the fading flower, turning it into a sort of sarcophagus. Although the death-trap is apparently unintentional on the part of the Red-hot Poker, it is none the less a plant to be looked upon with suspicion by bee-keepers.

BLUEBELLS.

Ring out, O Bluebells in the grass,
Your faint *carillon*, wild and free,
Though she who loves you best—alas!—
Has wakened to Eternity.

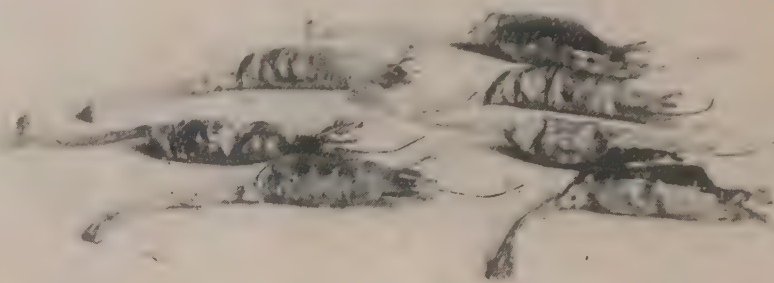
Ring out, O bells, above her grave
(A fluttering sheet of living blue),
Lest even in her bliss she crave
One flower of old among the new.

Ring out, ring out your music rare,
Frail minstrels of the moors and fells,
Until its echoes reach her where
She listens 'mid the Asphodels.

From "Songs of a Day," a little book of exquisite poems by Isabel Butchart just published by *Country Life*.

Climbing Rose Lady Swaythling.—We noticed a reference in *THE GARDEN*, issue October 21, to our new Hybrid Wichuraiana Rose Lady Swaythling, and we are now sending you a few sprays of bloom cut from plants which are now flowering freely in the open. The blooms have been somewhat damaged by the wind. The plants have not been pruned at all, and we think, therefore, that we may claim for this Rose that it is a true autumn flowerer.—W. H. ROGERS AND SON, LIMITED. [This note was accompanied by beautiful sprays of this climbing pink Rose. The blooms were fresh and fragrant, and borne in profusion on the sprays. It is a delightful Rose for the time of year.—ED.]

Rose Adelaide d'Orleans.—In the note relating to this Rose on page 509, issue October 21, it is stated "one may search in vain through many modern catalogues of Roses for a reference to Adelaide d'Orleans." I should say it is questionable if any catalogue so named it, simply because it is a synonym for Leopoldine d'Orleans, and I know of at least two English catalogues which list it under the latter name. It is, as you say, a very beautiful Rose, and so are others of the same



BEES IMPRISONED IN THE FADED FLOWERS OF RED-HOT POKER.

group of *R. sempervirens*. *Myrianthes Renoncule* is very fine, bearing fine graceful clusters of peach pink flowers. *Flora* is perhaps better known, and there used to be a fine mass of it in the Rose Dell at Kew. Every flower is like a miniature Captain Christy, and the plant is a fine rampant grower. The modern *Wichuraianas* and *Multifloras* have somewhat eclipsed these old Roses, but I should be sorry to see them disappear, for they have a charm all their own in that the clusters of flowers are well displayed and not hidden by side growths, as is the case with some of the modern kinds.—DANECROFT.

Scarcity of Wasps.—Your Wells correspondent mentions the scarcity of wasps this year, and it would be interesting if some entomologist among your readers could give us the explanation, which is not, I think, to be found in your correspondent's suggestions. Here last year we had a great many nests—many more than usual. Bee disease, which a few years since visited this district, was not, I believe, prevalent last year. A fact which made the shortage of wasps this summer the more extraordinary, and which may possibly have some bearing on the cause, was the plethora of queens this spring. In this neighbourhood they were certainly more than ten times as numerous as usual. We expected to have a strenuous conflict for our Plums, and provided numerous bottle traps and a stock of tar, with the result that we did not kill half a dozen wasps during the whole summer and had no occasion to take a single nest. By the way, it does not seem to be generally known that half a pint of tar poured in at the front door (or through a substituted opening, if that one be not suitable) and a clod on the top is the simplest method of dealing with the nests when in the ground. There is about a quarter of an hour between dusk and dark when practically all the wasps are in, and the operation can be carried out with impunity and without the necessity for a light. A wine bottle is a convenient receptacle for the tar.—T. C., *Llansantffraid, Montgomeryshire*.

"Novel Potato Production."—I noticed your first article on this subject, and since then various communications to *THE GARDEN* have antedated the first origin of the idea. The latest, in your issue of October 21, puts the date back to more than forty years ago. A few years ago a friend lent me the first two volumes of the papers communicated to the Royal Horticultural Society—picked up on a bookstall for 1s. 6d. each!—commencing, I think, in 1807, beginning with a most interesting article on the origin of the name "Strawberry" by the first president of the society (Sir J. Banks, I think). Among the papers which were selected for an award of a silver medal was one upon this identical "Novel Potato Production," which I read with much interest but never tried. The writer advised growing the Potatoes in a box, putting a layer of

moderately dry earth on which the Potatoes were laid, allowing a space for the new growth, then covering with more earth and another layer of Potatoes till the box is filled. In about six weeks (if I remember rightly) the box was to be emptied, the new Potatoes that were large enough for food detached, and the box refilled as before so as to allow the smaller tubers to continue their growth. It seemed to be a simple method, and if you would reprint the article I am sure many of us would be glad to make a trial of it.—N. STEPNEY RAWSON. [The article to which our correspondent refers appears in the Transactions of the Royal Horticultural Society, Vol. I., 1805-1812, as follows: "On Raising Young Potatoes in the Winter Months. By A. Sherbrooke, Esq., of Oxtou, in Nottinghamshire. Read March 5, 1811. In the beginning of May, lay a quantity of the largest Oxnoble Potatoes two or three deep on a dry cellar floor, and turn them over in about three weeks, rubbing off all the white sprouts as they appear, but not the spawn or rudiments of the young Potatoes. At the end of September have ready a few boxes; at the bottom of each place six inches of decayed leaves, dried to a vegetable mould, and place upon it a single layer of Potatoes, close to each other; then put another layer on the same mould, six inches deep, then another of Potatoes, and so on until the boxes are full. Set the boxes in a dry covered place, free from frost, never giving them any water. They will produce fine young Potatoes in December; and those which are ready may be taken off, and the old Potatoes replaced until the remainder of the produce shall be ready. To obtain a succession, place other Potatoes in vegetable mould, in the succeeding winter months."—ED.]

Rose Mrs. John Foster.—I am sending a photograph of what appears to be my last good Rose of 1916. It is a splendid variety for late blooms, and it is one of the delights of Rose growing to get a whiff of its sweet odour on a November morning. It is one of the Roses raised by Mr. E. J. Hicks. The parentage was Richmond and Alfred Colomb, the former being the seed parent. The flowers are of a rich vermillion hue and borne on a strong-growing bush.—C.

Ophiopogon Jaburan.—This pretty Japanese plant is one of the most noticeable of the late flower year, blooming from the middle of September to the middle of October. The neat, upright spikes, closely set with the round, closed purple flowers, have something of the appearance of Grape Hyacinths. The dark green, linear leaves are nearly 2 feet long and less than half an inch wide. The whole plant has a singularly clean and wholesome as well as distinct appearance. It is perhaps best when it is a little dwarfed by being grown in rather poor and dryish soil. It looks particularly well in rockwork, where so many of the plants are ineffective in autumn.—G. J.

Narcissus White Horse of Kent.—This is a little trumpet Daffodil raised in his latter days by the late Rev. G. P. Haydon. The stock is small and it is a slow increaser, so that it is hardly likely to be in important evidence at shows for some years to come. Its parents were Mme. de Graaff and Glory of Leiden, but there is very little, if any, trace of the latter in its appearance. Its perfect purity makes it stand apart from other so-called "white" Daffodils, and in a careful inspection made at the Birmingham Daffodil Show last April I could find no trumpet

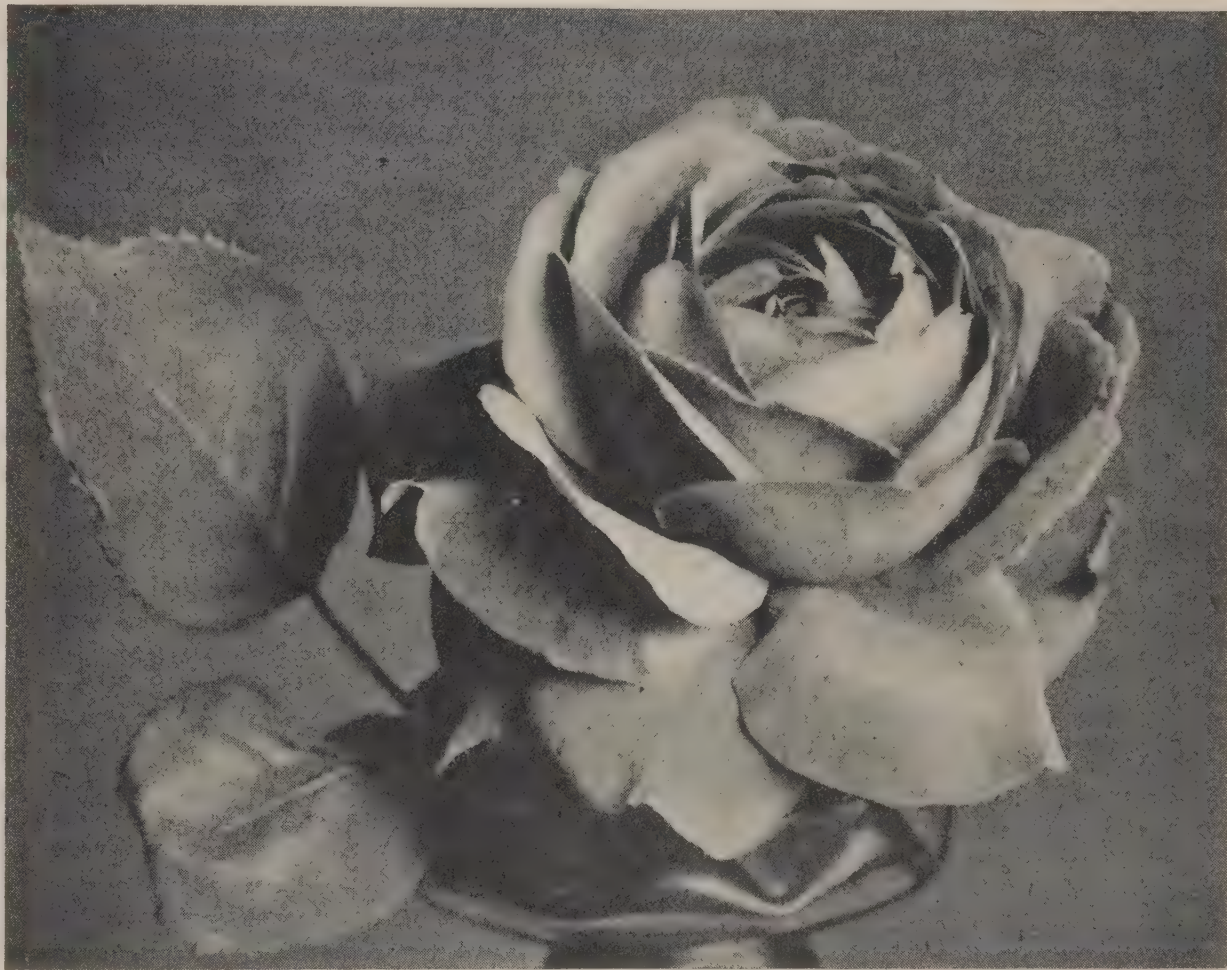
Daffodil quite so white, even in that beautiful class in which it was shown; I refer to the class for six white trumpet Daffodils, in which pure whiteness is to be the principal point to be considered by the judges.—ORNATUS.

Single Rose Mrs. C. E. Salmon.—"Anne Amateur's" specious note on this Rose on page 535 of your November 4 issue raised a smile when I read it. It was evident that the arrow I shot into the air had indeed found its mark. Seeing that her original statement was a little—shall I say?—inaccurate, "Anne Amateur" endeavours to start a fresh hare, and appeals to her fellow flower-lovers to say whether her taste in preferring priceless egg-shell porcelain to cheap, clumsy, common earthenware is at fault, although, I take it, when the Onion that is likewise dragged in comes to be cooked, "Anne Amateur" would find her common earthenware rather more useful! Under this disguise

SCARCITY OF BUTTERFLIES

BY SIR HERBERT MAXWELL.

OUR experience this season in South-West Scotland coincides with that of Mr. Sturge in North Wales. I have not seen a single Red Admiral this autumn, which is the more remarkable because they were unusually numerous in the autumn of 1915, and presumably plenty of females survived the mild winter to apply themselves to egg-laying in the following June. The social wasps, also, abounded exceedingly in 1915, with the result of an abnormal number of queens in May, 1916. But the cold and wet of June and July were fatal to the broods, and hardly a wasp was to be seen in August. I mention the scarcity of wasps only to express



A NOVEMBER BLOOM OF ROSE MRS. JOHN FOSTER

her fellow flower-lovers—or anyone else, for that matter—will have some difficulty in recognising her original statement "that Mrs. C. E. Salmon is nothing but a vulgarised edition of the wild Rose." That was the remark at which I shot my arrow, and I think my bolt was a very mild one. It was simply that the statement referred to was "quite erroneous." Equally so, I may say, is her suggestion that I am "one of the high and mighty but prejudiced professional florists." I have no credentials that would warrant my being so described. Would that I had! I, too, am only "an amateur," but one who admires beauty in whatever form it may be dressed, be it in the wild Rose or in the latest product of the professional florist.—HERBERT E. MOLYNEUX, Southampton.

FORTHCOMING EVENT

November 21 — Royal Horticultural Society's Meeting and Exhibition at Vincent Square, Westminster.

the opinion that the apparent scarcity of autumnal butterflies is owing, not to ungenial weather in summer, but to wet and sunless weather in autumn. The summer of 1912 was far worse than that of 1916, yet I find on looking up my notes that on September 15, 1912, being delighted with the number of Red Admiral butterflies in the garden, I set to work to count them. Seven were competing with humble-bees on one plant of Sedum spectabile, nine were equally busy among the purple tassels of Buddleia variabilis magnifica, and five were near at hand on the yellow heads of Inula Hookeri. Twenty-one within the space of a few yards, and I pursued the reckoning no further.

The inference from this is that the weather in June has little effect upon the progeny of the Red Admiral mothers, which are hardy creatures, feeding only on Nettles—a crop that never fails—and drawing the leaves together over them for shelter. They pass into the chrysalis stage about the beginning of August, whence they emerge

in four or five weeks. But they dare not display their splendour except in sunny weather. The wing of a butterfly is too delicately complex to stand rain and wind; an inclement autumn compels them to keep in the shelter of herbage, with their glossy pinions closely shut. Probably most of them, unless a spell of sunshine tempts them out, go early into winter quarters, for the maintenance of the race depends on females that hibernate successfully, and, though very hardy as caterpillars, they are so sensitive to wet and cold that they never emerge from their hiding-places until the vicissitudes of a British spring are well over.

The absence of these brilliant insects from the autumn borders is a notable misfortune. If the Red Admiral were as rare as, say, the Camberwell Beauty, what a fine fuss would be made about its appearance! Common as it is in some seasons, one's eye never wearies of its beauty, so thoroughly satisfying is the just balancing of clear scarlet and jetty black, so craftily are the white spots placed just where the black is jettiest. The German colours! nay; those masterly little touches of azure on the edge of each hinder wing redeem the composition from any such suggestion!

If I do not transgress unduly on your space, I would add that it puzzles one to divine what prompted Linnaeus to call the three Nettle-feeders—the Red Admiral, the Peacock and the Small Tortoiseshell—by the fanciful name *Vanessa*. That was the cryptonym invented by Dean Swift

for Esther Vanhomrigh, when he masked his own rank of "Decanus" in the anagram "Cadenus." One is also curious to know why Linnaeus chose to call the Red Admiral *Vanessa Atalanta*, for though it is a strong flyer, it is not nearly so swift as *Vanessa Io*, the Peacock butterfly.

TWO NEW CHRYSANTHEMUMS

By THOMAS STEVENSON.

Dawn of Days.—This promising Japanese variety, shown by Mr. Norman Davis, received the first-class certificate of the National Chrysanthemum Society and award of merit of the Royal Horticultural Society on October 23 and 24 respectively. The bright golden bronze colour is very striking, and the petals, though not very long, build up a good square-shouldered bloom that will be most useful on the exhibition board, and as it is particularly solid and keeps well, it may prove worth a trial as a market variety. The foliage is not large, and the plant only attains a height of 3 feet to 4 feet, which is distinctly an advantage.

Mrs. Algernon Davis, another variety from the same raiser, is, I am sure, the best pink sort we have had for exhibition for some time, though quite different in style to the preceding. It has every good point necessary in an exhibition flower.

The petals are of good substance, long and drooping, somewhat after the style of bloom of *Edith Jameson*, but altogether larger and even more beautiful in colour, this being a clear silvery pink. The bloom opens easily and, like the first named, the plant is quite dwarf. This also received the award of merit of the Royal Horticultural Society and an award for colour from the National Chrysanthemum Society; but before this note appears I feel sure it will have received the first-class certificate of this latter society.

GLADIOLUS WHITE LADY

For many years this beautiful *Gladiolus* has been grown here, and for the last two or three seasons in some quantity. This year for the first time a few spikes have appeared tinted a pale flesh colour. There is no possibility of any rogues having got into the stock, and it would be interesting to know to what one might attribute this peculiarity. Is it just a freak of the season?

Rye. F. H. C.

THE ALPINE HOUSE IN AUTUMN

By EDWIN BECKETT, V.M.H.

FEW houses give more pleasure throughout the year than that which is devoted principally to alpine plants, and even throughout the closing days of autumn and winter there is always something to attract the enthusiastic lover of hardy plants. The small house here at Aldenham is a three-quarter span facing due north. The back wall is a rock garden, and is clothed principally with suitable Ferns, Sedums, *Euonymus kewensis*, *Helxine*, *Sempervivums*, *Mesembryanthemums*, Thymes, &c. Suitable pockets are arranged for receiving various-sized pots and pans as the plants come in season. The front stage is devoted to pots and pans, principally of flowering alpine.

At the time of writing, several plants are beautifully in bloom. A large pan of *Oxalis lobata* is a charming sight, covered as it is with its beautiful bold yellow flowers.

Cyclamens in variety are in full flower, perfect gems. The rose and white minute flowers have a strikingly beautiful effect, which is enhanced by the marbled leaves, which appear before the flowers have quite finished. Cyclamens should find a place in every collection of choice hardy plants.

Sedum Sieboldii, an old but graceful and charming plant, is in full flower, as well as *S. Palmeri*. Equally beautiful are the various forms and coloured foliage of the many varieties of Sedums, Saxifrages, *Sempervivums*, Thymes, &c., as well as the more minute kinds and varieties of the various alpine plants.

It is perhaps a little surprising that more people do not invest in a small house for the reception of these ever-increasing popular plants. The cost of building and maintaining such is quite infinitesimal as compared with many other kinds of houses, and is easily managed by either sex who are devoted, as so many are, to such forms of plant life.

THE CRETAN SPIKENARD

PROBABLY few readers will recognise the time-honoured herb under the above name, but it is none other than our old friend *Valeriana Phu*. It is an interesting plant easily cultivated in the open, and in some parts of the country—as an estray from gardens—it is known to grow wild. The writer of these notes came across it a few weeks ago in a convent garden, where it was known only as the Cretan Spikenard and cherished by the Community for its antiquity and for its alleged healing virtues. It is interesting to note how many old herbs, the uses of which may have long been forgotten, still cling to their old haunts in secluded gardens. I think that this must have been one of the plants Maurice Maeterlinck had in mind when he wrote the following lines on old-fashioned flowers: "That is why I love above all the simplest, the commonest, the oldest and the most antiquated: those which have a long human past behind them, a large array of kind and



NEW EXHIBITION CHRYSANTHEMUM MRS. ALGERNON DAVIS.

consoling actions; those which have lived with us for hundreds of years and which have formed part of ourselves, since they reflect something of their grace and their joy of life in the souls of our ancestors. But where do they hide themselves? They are becoming rarer than those which we call rare flowers to-day. Their life is secret and precarious. It seems as though we were on the point of losing them; and perhaps there are some which, discouraged at last, have lately disappeared, of which the seeds have died under the rains, which will no more know the dew of the gardens and which we shall find only in very old books, amid the bright grass of the miniature-painters or along the yellow flower-beds of the Primitives. . . . They are forbidden to prattle near the steps, to twitter in the marble vases, to hum their tune beside the lakes, to lisp their dialect along the borders. A few of them have been relegated to the kitchen garden, in the neglected and, for that matter, delightful corner occupied by the medicinal or merely aromatic plants, the Sage, the Tarragon, the Fennel and the Thyme, old servants, too, themselves dismissed and nourished only through a sort of pity or mechanical tradition. Others have taken refuge by the stables and the coach-house, near the low door of the kitchen or the cellar, where they crowd humbly like importunate beggars, hiding their bright dresses among the weeds and holding their frightened perfumes as best they may, so as not to attract attention. But, even there, the Pelargonium, red with indignation, and the Begonia, crimson with rage, came to surprise and hustle the unoffending little band; and they fled to the farms, the cemeteries, the little gardens of the rectories, the old maids' houses, and the 'country convents.' The Cretan Spikenard from the secluded garden had recently been applied to a person suffering with an ulcerated leg, with good results. It does not often happen in these days that garden plants are used to allay ailments, but, for all this, it would be interesting to hear what others know of its healing virtues. The name *Valeriana* alludes to powerful medicinal properties. It is a mediæval name said to be derived from *valere*, meaning to be healthy.

The Cretan Spikenard is a plant easily increased by division at the root, and I was given permission to take a piece away with me. On severing a portion of the root with a trowel, the air was pervaded with a peculiar but pleasant odour. The leaves, when broken have a decidedly unpleasant smell, not unlike that associated with the stems and roots of the better-known *V. officinalis*, the common Valerian, or All-heal, which has pink flowers. It should be explained that the Cretan Spikenard (*V. Phu*) has white flowers, usually in August and September. It grows to a height of about 2 feet and has two sets of leaves, those on the root known as radical and others on the stem known as cauline leaves. The latter are deeply lobed, while some of the radical leaves are undivided and others lobed. A precious and fragrant ointment is made from the roots of the Cretan Spikenard. Not that this is the only plant used for this purpose, there being many kinds of Spikenard ointment made from different Valerians and even plants of other genera.

Valerian Spikenard was known to the ancient Persians and Arabians, and the name of Nard is of Persian origin. The Persians, as overland carriers between India and Mesopotamia and

other parts, are said to have communicated their name for it to the Hebrews, the Greeks and the Romans. Dioscorides mentions four kinds of Nard—the Celtic, the Mountain, the Syrian and the Indian. To these might be added the Spanish and False Nard, but as *Valeriana dioscoridis*, which is the true *V. Phu* or Cretan Spikenard, is the most powerful and aromatic of the Valerians, it is safe to assume that it has played its part in the past, as in the present, in making highly esteemed perfumes in Eastern countries. Its Persian name is *Bekhi-sumbul*, but it appears to have had many substitutes. It is now generally agreed that the Indian Spikenard is prepared from *Nardostachys jatamansi*, a plant closely allied to *Valeriana*, that may also be grown in the open here.

To this day the Cretan and Indian Spikenards are used for making hair washes and ointment, the popular opinion being that they promote growth and blackness of the hair. There is a golden-leaved variety of the Cretan Spikenard that is very effective, especially in the spring when the leaves are young. This, like the type plant, will grow freely in any soil, so long as it gets a fair amount of moisture. The Cretan Spikenard should be grown by those who appreciate its past associations, apart from the modest display of flower and foliage that it makes.

By the way, can anyone tell me the botanical name of the Spikenard mentioned in the following quotation from Maurice Maeterlinck's essay on field flowers: "Here are the sad Columbine and the Field Sage; the Ploughman's Spikenard, the Sheep's-bit, the Angelica, the Field Fennel; the Wallflower, dressed like a servant of a village priest"?

H. C.

THE AUTUMN-FLOWERING SNOWDROPS

ON former occasions I have referred to the question as to whether the autumn-flowering Snowdrops, such as *Galanthus coreyrensis*, *G. octobrensis*, and a few others which bloom in autumn, retain their late, or, rather, early flowering habit when long in cultivation in these islands. My own experience here, as elsewhere, has been that they are gradually falling into line with their sister flowers, the Fair Maids of February. I have had from several of my correspondents some corroboration of this, but it is only fair to say there are others who have not the same



A PROMISING JAPANESE CHRYSANTHEMUM DAWN OF DAY.

change to record. I have been wondering if this is not a question of altitude, seeing that we are informed that in Greece, whence *G. Olgae*, *G. Rachelæ* and others come, the autumnal Snowdrops are on the higher grounds alone, and that their sister flowers lower down do not bloom until the usual time of our own Snowdrops.

It would, I think, be not only interesting, but also of some practical service to gardening if we could elucidate this point, and I venture to ask others who have cultivated these autumnal Snowdrops if they can favour us with their experience. I have at one time or other cultivated all the forms which have come into cultivation, and they have in course of time gradually become later and later until some of them are no earlier than the common *G. nivalis*, and others flower but little in advance of it and are becoming more and more tardy. The retrogression is not a regular one, but seems to depend a good deal on the character of the autumn. In certain seasons some of them come in a little nearer the autumnal flowering period, but, as a whole, there is a steady retrogression. That these Snowdrops bloom in autumn on the higher lands, and that there are, so far as I know, no autumnal ones lower down is an important fact in considering the question. Some of these autumnal Snowdrops are delicate in their constitution. I fear that *Galanthus Olgae*, now again available for us, will simply follow the others in this slowly retarding tendency.

Sunnymead, Dumfries.

S. ARNOTT.

A NOVEMBER DAY AT GRAVETYE MANOR

IT was a gusty day in the first week of November that we paid a visit to Mr. William Robinson at his beautiful home in Sussex. We all know Mr. William Robinson, whether we have met him or not, for he was the founder of *THE GARDEN* just forty-five years ago. In leisure moments it is a joy to many to turn over the pages of the early volumes of *THE GARDEN* containing old engravings and some of the finest literature in the history of gardening, and we return thanks to "W. R." for it—though perhaps silently.

On this November day Mr. Robinson came to meet us in his wheeled chair in the direction of Kingscote Station, and we journeyed back to the old manor house through miles of woods, most of which he had planted. With great pride he would point out a bold group of Norway Maple now in the height of its autumn colouring, a woodland of Silver Birches and Red Oak (*Quercus rubra*), the latter one of the finest of American trees, remarkable for the richness of its autumn tints, or a plantation of *Abies grandis*—all of them young when compared with the ages of trees, but none the less promising. These trees were planted without soil preparation, with a natural undergrowth of Bracken, Gorse, wild Rose, Spindle Trees and Sea Buckthorn. The Liquidambar planted in similar conditions has so far not proved as successful, although its warm crimson leaves lend a touch of brilliant colouring by the roadside. From a higher position we stopped to admire the wild Chérries in their autumn dress—golden

from beneath and crimson above—scattered here and there in the vast landscape that laid before us.

Gravetye Manor was built more than 300 years ago, and commands one of the finest views in the South of England. A bold planting of Scots Pines marks the approach, and a belt of Pines forms an imposing background, to this grand old manor house. Mr. Robinson has retained many of the early features of the place, including the formal garden, at one time doubtless filled with the common run of bedding plants. Here Roses are grown in beds with great success. A good deal of space is devoted to Tea and the old China or Monthly Roses, some of which were still in flower. Mr. Robinson strongly deprecates the practice of mulching Rose-beds with manure, particularly when the beds or borders are near to dining-room windows, and in the place of manure we see the beds more or less covered with the Irish Mossy Rockfoil, Pansies, Violets, Stonecrops and Thyme. Another delicate carpet of the soil, and one that is now in full flower in the Rose-beds, is the Violet Cress (*Ionopsidium acaule*). It even flourishes on the walks, though it does not appear to overrun its neighbours in the beds. Some of the Roses do well for a year or two and then die off, owing to the unsuitability of the soil at Gravetye to the wild Rose stock. This was very apparent with that charming Rose *Marquise de Sinety*, which, having failed on the Briar stock, had rooted like a Willow from cuttings and was thriving on its own roots. Not the least interesting feature of the formal

garden is a group of veteran Yews said to be as old as the manor house. We were impressed with the delightful silvery grey foliage of the Azure Sage (*Perovskia atriplicifolia*—see illustration, page 562) which lends an additional interest to the Rose garden in autumn. It makes a large, bold group 5 feet or 6 feet high and would associate well with half-shrubby plants like the Californian Tree Poppy, which does so well at Gravetye; the two plants would flower much about the same time. Another pleasing feature of the Rose garden is the manner in which Clematises are grown on Oak and Chestnut trellises, some in shade and others exposed to the sunshine, and many beautiful Clematis flowers were open even as late as the time of our visit.

A steep and narrow road planted with Ferns on either side leads to the gardener's picturesque cottage, partly surrounded by a moat, doubtless useful in bygone days for the protection of sheep against attacks by wolves.

It was very pleasing to see little clumps of Gentians doing so well on the face of low walls in just those vertical places where *Ramondias* and *Haberleas* might be expected to thrive; while the rare *Raoulia australis*, making a dense carpet of its silvery grey foliage quite close to the ground, was quite at home among European alpine and in perfect condition despite the trying weather it had experienced.

Mr. Robinson's antipathy to the common Privet is well known, and he was much interested to hear that Privet when in flower is responsible for a peculiar sickness among the people of China, and that the corporations of large towns go to considerable expense to have all the Privets clipped before flowering.



THE LOWER LAKE AT GRAVETYE MANOR

The wild Heath garden, overshadowed by magnificent Pines, makes one of the features of this great garden, while here and there bold clumps of Berberises brighten the landscape with their sumptuous colouring. *B. Thunbergii* and the newer *B. Wilsonii* are two of the best, the former for foliage and the latter for its berries. *Erica darleyensis* and the taller-growing Portuguese Heath are full of buds ready to open, while the past blooms of the wandering Cornish Heath and the Dorset Heath create very pleasing bits of colour at the foot of tall *Arbutus* trees and flowering Wych Hazels. A midwinter scene in this delightful Heath garden appeared on page 31 of this volume.

Before bringing these notes to a close we must mention two trees, *Photinia villosa* and the Himalayan Beam Tree (*Pyrus Sorbus nepalensis*), both being extremely fine in foliage for autumn effect.

November may be a dismal time in many gardens, but this is not the case at Gravetye Manor, for the day was all too short in company with the great gardener who has done so much to beautify this fair land of ours.

THE PLANNING OF GARDENS.—III

BY THACKERAY TURNER

(Continued from page 547.)

IT is noticeable that it is easier to provide a house with a well-laid-out garden than to lay out a garden well when there is no house in question. The fact is that the presence of a house not only provides firmness of line and a conspicuous mass which give a kind of support to the surrounding garden, but it also imposes many conditions to which the garden must conform, and, as in other arts, difficulties caused by such conditions end in being most helpful to the construction of a true work of art. The garden is provided for the house and must clearly allow space round it. It must, as it were, pay its respects to the house.

As we have in this country quite as much bad as good weather, it is nice to have paved paths both round the house and leading from it on which to walk on damp days. These paths can be of brick, York or Purbeck stone, or of local rough stone set on edge. It is a good plan to lay bricks on sand-beds and grout them in with cement and sand. If this is done, the bricks do not get damaged by the frost, and the method is less costly than concrete. It must, however, be remembered that a brick paving thus made will not stand the weight of a loaded cart. Purbeck

stone makes the very best paving. It wears well and is a delicate silvery white.

There are few things more wasteful than making bad paths. In this case the saving of labour will prove extravagant in the long run, and it follows that the position of paths should be thoroughly thought out from the first as fixed points in the design. Wherever a road or path has to come, the ground should be excavated for a foot, or at least 9 inches. The soil thus removed will come in most usefully for flower borders. If it is a cart track which is being made, a well-rammed stone bottom should be put in—the larger the stones the better, for the sake of good drainage. For paths any dry rubbish,

from additional rooms, and a garden with more than one part is more interesting and restful than a single small garden. A cottage garden may be, and often is, very beautiful, but it is the manor house garden that we travel furthest to see.

Bacon says: "I do hold it, in the Royal ordering of gardens, there ought to be gardens for all the months of the year," and every owner of a garden will sooner or later find the truth of this. It is difficult to produce a beautiful border effect when you have plants which are going to flower, and, still worse, those which have done flowering taking up space among those actually in flower. If you can collect the plants which flower at approximately the same date, it only remains to remember their



GRAVETYE MANOR, VIEW OF THE FLOWER GARDEN FROM PERGOLA.

such as old bricks or clinkers, will do very well. We have already seen the importance of a sense of mystery in garden planning, and how the heart and soul of such planning lies in the satisfaction of personal taste and the individuality resulting from such satisfaction. Many a good garden has been made by altering a badly planned one. The very badness is a stimulus to grand improvements. But in every case the work could have been done rightly from the first at half the cost. There is a very close resemblance between garden planning and house planning. Both house and garden are places designed for human beings to live and rest in. You can, no doubt, live in a single room, but more comfort and repose result

heights and to arrange their colours pleasantly together. It is true that a May garden, for instance, will be very shabby when its time is over, but it might be a walled garden with entrance doors which could be locked and labelled "Empty."

Flower-beds are very commonly made to fall from back to front, and, if not originally made so, the continual addition of manure will raise them and bring about the same result. The chief objection to a falling border is the difficulty of watering it in dry weather without the water running off before it can soak in. Some earth should therefore be periodically removed and the surface kept level.

(To be continued.)

THE CETERACH IN NORTH WALES

BY A. T. JOHNSON.

TO come upon a robust colony of this unique little Fern in some parts of North Wales must be regarded as a discovery, for it appears to be very local in its distribution. Others may have been more fortunate, but as I had been on the look-out for it for years, a couple of score of lusty plants sticking to the mortar of an old wall was to me a pleasing "find."

The Scaly Spleenwort seems to be most common in those western counties, or districts, where limestone abounds. At one time, over a century ago, so the Rev. Hugh Davies, who wrote a "Welsh Botany," tells us, it was very abundant on Holyhead Mountain, but it was then becoming "very scarce from being gathered for bait in rock-cod-fishing." An odd use for so dainty a Fern, but one that may be easily understood by anyone who has observed the extraordinary resemblance to a curled-up, brown, hairy caterpillar which the fronds assume when dried by the sun. Old Gerard was evidently aware of this, for he writes: "the leaves, when they be withered, are folded-up together like a scrole, and hairie without, much like to the rough beare-worme wherewith men baite their hookes to catch fish." As might be expected, *C. officinarum*, being the

original Spleenwort, was held in high repute in ancient medicine. In cheering up the "grief of the spleen" no herb was to be compared with it, and its great virtue as a tonic for "asses oppressed with melancholy" was highly valued. But in these more scientific days the Scaly Spleenwort has been obliged to drop the name which its supposed medicinal properties had earned for it, and it has been classed among the genus *Ceterach*, a title apparently of Eastern origin. This fact, however, does not rob *C. officinarum* of any of its actual charm and interest. As a dwarf form for naturalising on old walls, banks and rockworks it deserves all the attention we can spare it, for the rich, shining green of the upper surfaces of the blunt-lobed fronds, the ruddy brown velvet of their under parts, and the silvery whiteness of the young leaves are peculiarly attractive characteristics. Examined through a lens those brown under surfaces appear as a very beautiful network of scales, so arranged that they entirely conceal the fructification.

Another point in favour of *C. officinarum* in cultivation is that it is quite easy to grow. All it requires is a north aspect, some old mortar for its roots to cling to, and an even supply of moisture. It is impatient of too much water, and withers in too hot a sun. The roots, however, are very tenacious of life, and even though they may be shrivelled up by sun and apparently killed, they will, like the stranded starfish, recover under the influence of water.

SEEDLING NERINES

THOUGH a few species of *Nerine* have been grown in our gardens for a very long time, it is only within the last twenty years that they have made great headway in popular favour. This is borne out by the fact that whereas in the "List of Plants Certificated by the Royal Horticultural Society Between the Years 1859 and 1910" thirty-three varieties have been honoured, only three of them are of an earlier date than 1896. The reason of the great influx of desirable varieties is that *Nerines*, as a rule, readily lend themselves to the operations of the hybridist; hence large numbers of seedlings have been raised. Since the list was published up to the end of 1910 there have been additions thereto, one quite recently, *N. Rotherside*, raised by Mr. F. Chapman of Rye, having obtained an award of merit. A very desirable feature of the different *Nerines* is that they come into bloom during the autumn months, when so many of the summer-flowering occupants of the greenhouse are on the wane, if not absolutely over. In many of the brighter-coloured forms the segments of the flower are studded with sparkling coruscations, which, viewed from some standpoints, present the appearance of being studded with gold dust. In some of the original species the segments on the upper part of the flower are separated by a greater or lesser space from the lower ones, but in many of the newer kinds this feature has to a great extent been eliminated, thus forming a regularly shaped bloom.



THE AZURE SAGE (*PEROVSKIA ATRIPLICIFOLIA*) IN THE FLOWER GARDEN AT GRAVETYE MANOR.

to the amateur with but a single greenhouse the culture of these Nerines can be recommended, for they give but little trouble, and the raising of seedlings, though it calls for a fair amount of patience, is a delightful hobby. H. P.

NEW AND RARE PLANTS

FIRST-CLASS CERTIFICATES.

Berberis rubrostilla.—A graceful and beautiful plant of presumably hybrid origin that, when ripe for distribution, will be welcomed by all the garden in the open air. Erect-habited and freely branched in its upper parts, the plant is of the highest ornament at this time, when the arching growths are furnished with the brilliant coral red fruits. Ovoid, these depend in twos or threes on inch-long pedicels from the under sides of the branches, adding by their abundance a new beauty to the garden in autumn and fresh lustre to a genus already richly endowed. Appearing at its best in November after the recent trying weather of frost and storm, it is of peculiar value. The whole plant is copiously armed with nearly inch-long spines. The small ovate leaves are also spiny. It is deciduous. From the Royal Horticultural Society's Gardens, Wisley.

Berberis Sargentiana.—This beautiful kind has already received an award of merit, and is now admitted to first-class certificate honours, which its obvious merits fully justify. Admittedly the best of the evergreen kinds and possessed in some degree of the ornamental leaf character of *B. Wallichiana*, the species is handsome and striking now in its mingled leaf colour of green, bronze and scarlet, and the more precious because of its long-continued beauty. Good as a picture-making subject generally, the rigid, outstanding, ivory white spines, in sharp contrast to the coloured leafage, add yet another feature to a sumptuous whole. The small blackish purple fruits are in clusters and not greatly important. A fine bush 3 feet or so high was shown. From the Hon. Vicary Gibbs, Aldenham House, Elstree (gardener, Mr. E. Beckett).

Cypripedium Mrs. Hilary Jenkinson.—A magnificent and finely proportioned hybrid with brownish sepals, petals and pouch, and broad, handsome dorsal petal copiously spotted with crimson and chocolate. From R. Windsor Rickards, Esq., Usk Priory, Monmouthshire.

AWARD OF MERIT.

Cypripedium A. J. H. Smith.—In all probability this is the most exquisite of the *C. niveum* crosses to date. The sepals and petals are pearly white, the comparatively large dorsal sepal being prettily suffused with pink. Shown by Mrs. Norman Cookson, Oakwood, Wylam-on-Tyne (gardener, Mr. H. J. Chapman).

OTHER AWARDS.

Messrs. Armstrong and Brown, Tunbridge Wells, received a preliminary commendation award for *Odontoglossum General Cadorna*; and W. W. Bird, Esq., Manor House, West Wickham, a cultural commendation for a remarkable example of *Odontoglossum Lambeauianum* bearing a 4-feet-high branched raceme of flowers.

The foregoing were before the Royal Horticultural Society on November 7, when the awards were made.

PROFITABLE APPLES TO PLANT

APPLES occupy an important place among hardy fruits, and well-managed trees of good varieties greatly enhance the value of any garden. By planting bush or pyramid trained trees on the Paradise stock a quick return is obtained, and those who have sufficient space in their gardens would do well to include some of the varieties now mentioned if planting this autumn. Cooking Apples are perhaps the most useful, and a selection capable of producing a long supply is a necessity. Among early varieties

White Transparent is a particularly useful Apple, as it is fit for use towards the end of July, and when quite ripe some people like it as a dessert fruit. The tree is a vigorous, upright grower and crops well in a young state; in fact, this is one

fruits are round and even in shape, with clear, pale green skin, and they cook exceedingly well.

Tower of Glamis is a most useful variety to follow this. It is a free and vigorous grower and a regular cropper, while it succeeds equally as a bush or standard. In districts where Warner's King is subject to canker, Tower of Glamis will be found invaluable.

Lane's Prince Albert fully merits the high position it occupies in the estimation of fruit growers, as it is a consistent cropper and quite one of the best late Apples. The habit of growth is inclined to be spreading, and careful pruning is necessary. It is probably most satisfactory when grown as a bush. The fruits attain a large size and assume an attractive colour on the exposed side. In

Bramley's Seedling we have a general favourite. Rarely does it fail to produce a crop, and the fruits are invariably of fine appearance and good quality. This variety succeeds well as a standard or a free bush, and it should not be pruned



THE NEW BERBERIS RUBROSTILLA. PARENTAGE UNKNOWN.

of the most regular cropping varieties grown. The fruits are of medium size and cook splendidly.

Lord Suffield is a grand early Apple where it succeeds, and although it is often subject to canker in cold, wet soils, there are not many gardens where it is not worth a place. Its large fruit and regular cropping qualities render it a most desirable variety.

Lord Grosvenor also merits inclusion, and like the above variety it is usually necessary to thin the crop to get the best results. It is not very subject to canker, and should be grown where Lord Suffield is not a success.

Grenadier is a fine early Apple fit for use in August and September. It is a vigorous and healthy grower, regularly produces a fine crop of large fruits, and deserves to be more widely grown. This variety forms a fine bush or pyramid and crops freely in a young state.

Stirling Castle makes a good succession and is at its best in October. This Apple is a wonderful bearer, and much thinning is often necessary to produce good-sized fruits. The individual

fruits are of medium size and cook splendidly. If only one Apple tree could be grown in a garden, I think Bramley's Seedling would prove the most satisfactory in most districts.

Bismarek is a handsome fruit that attains a bright crimson colour under favourable conditions. This is a very good Apple, with size, appearance and cropping qualities in its favour.

Newton Wonder is a grand late Apple, and the fruits keep well until May. The growth is clean and healthy, and the tree will form a perfect bush with a little care. It has the great merit of cropping freely in a young state, and the large fruits colour well in sunny seasons. Of dessert Apples,

Langley Pippin is a fine early variety fit for use in August. The fruits are beautifully coloured, crisp and juicy, and when the variety is more widely known it is certain to become popular.

Worcester Pearmain is perhaps the best of all early Apples. It rarely fails to produce a good crop, while the fine appearance of the fruits and their general good quality commend it to all. This variety succeeds as a standard or a free bush, and it should not be pruned too closely.

James Grieve is a splendid Apple that all should grow. The skin is a lovely yellow shade, and the fruits assume a pleasing colour on the sunny side. This Apple is a free cropper, and the crisp, sweet and juicy fruits invariably please the most fastidious tastes. It is well worth growing as a cordon on a wall where fruits of fine appearance are appreciated.

King of the Pippins is an old favourite, and in favourable seasons the quality is good. It succeeds best in a medium, well-drained loam, and usually crops heavily. The handsome appearance and pleasing colour of this Apple render it a useful market variety. The merits of

Cox's Orange Pippin are well known, and in gardens where it succeeds it should be extensively grown in different forms. The fruits are attractive in appearance, richly flavoured, and they keep much longer in good condition than is often supposed; in fact, they are usually in first-rate order for dessert from December until February, and often later. A warm soil is the best for this Apple, and it pays for good cultivation. In cold districts the best results are obtained by growing it on a south wall. In

Adam's Pearmain we have a first-rate winter Apple, and it is splendid for use at Christmas. The growth is free and healthy, and it usually crops well. The handsome, conical fruits are well coloured on the exposed side, and those who appreciate a crisp, sweet and juicy Apple will find this variety to their liking.

Allington Pippin has its admirers, and it is a very useful Apple to grow where Cox's Orange Pippin is not a success. It is a free bearer and the appearance of the fruit is good, but the flavour is often a little variable, it being much better after a sunny autumn. Those who like a "sharp" Apple should not be without this variety. J. GARDNER.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Pruning Grape Vines.—Labour is so short in gardens at the present time that most of the work of pruning Grape Vines will be done when the weather is unfavourable for outdoor operations. Prune when the leaves have fallen, making close cuts to avoid the formation of ugly spurs. Old Vines are often improved by leaving some young wood to permit of extension, or, in time, the cutting out of old rods.

The Hardy Fruit Garden.

Pruning Bush Fruits.—As time and the weather permit, the pruning and thinning of Currant and Gooseberry bushes should be proceeded with. In view of damage to the fruit-buds by birds, this work is sometimes left until the spring, but as a rule other work is pressing and abundant at that season. A fairly heavy dressing of lime and soot will keep off birds, and also clear the trees of insects and moss. Further dressings may be given, as the effectiveness of the soot is impaired by the weather. Assuming as much of the old wood as could be spared was cut out of the Black Currant bushes following the gathering of the fruit, little work remains to be done now. In pruning Gooseberries and Red and White Currants, leave some young wood to allow for extension, and keep up the vigour of the bushes.

Root Pruning.—This is done to check the growth of trees which are producing an excessive amount of wood and few or no fruits, when pruning of the branches has not had the desired effect. Young trees and, in fact, all trees of a convenient size are entirely lifted and replanted, shortening

the long, thick roots. Provided they are healthy and vigorous, it is never too late to endeavour to make old trees fruitful. When it is thought to be too drastic to cut all the roots at one time, one year a trench may be dug halfway round and the work completed the next. Undermine, when a suitable distance down, with a view to cutting any tap roots which may be present.

The Flower Garden.

Tree and Shrub Cuttings.—During November is a suitable time to insert cuttings of numerous trees and shrubs, which are readily propagated by means of ripened wood of the current season's growth. The cuttings for outdoor insertion are generally from 9 inches to 12 inches long, half to two-thirds of which should be inserted in the ground. Select a sheltered position for the cutting-bed, and if the ground is not fairly light and well drained, make up a bed of sandy soil. Tread the cuttings in firmly as the work proceeds, to obviate, as far as possible, loosening of the ground by frost. Examples of cuttings to insert are Poplars, Willows, Privets, Tamarisks, Flowering Currants, Laurels and Ivies.

The Herbaceous Borders.—In a general mixed border this is the time when most of the replanting and overhauling is done. There are better times for lifting and dividing some subjects, but in a mixed collection a season when it is suitable for the majority must be chosen. At intervals of several years it is usual to lift everything and trench the ground, the transplanting done in the intervening years being limited to free-growing subjects, such, for instance, as Michaelmas Daisies, Chrysanthemum maximum, Heleniums, Helianthus, Achilleas, Violas and Sedum spectabile. Perennials to leave undisturbed for several years include the Oriental Poppy, Japanese Anemones, Delphiniums, Everlasting Peas and Kniphofias.

Perennial Lobelias.—In many gardens, to keep them safely through the winter, it is necessary to lift the roots of *L. cardinalis*, *L. fulgens* and the numerous beautiful varieties. Placed in boxes of light soil, the protection of a cold frame is usually sufficient covering, with mats or litter during severe frosts. Little, if any, water will be necessary until the spring.

Plants Under Glass.

Violets in Frames.—The recent spell of wet weather has caused considerable damping of the foliage. The frames must be looked through every few days, as the damping spreads rapidly if the affected parts are not removed. Ventilate freely on all favourable occasions. At the time of writing, our frames have only been closed entirely during two nights. On bright and dry days pull off the lights for several hours. Cut off the runners, which are now making fresh growth since the removal of the plants to the frames.

Bulbs in Pots.—The bulbs plunged in ashes require inspecting about every ten or twelve days, as growth should now be fairly active among the Bunch Narcissi and early Tulips. When well rooted remove to a cold frame, covering with mats for a few days until the growths turn green. In the case of Tulips the covering may be left on, as it assists in drawing up the growths, the early varieties, as a rule, being very dwarf. The first flowers on the Roman Hyacinths and Paper-White Narcissi are welcome in the greenhouse and room. The bulbs here were potted up and others placed in fibre at the end of August. Kew. A. OSBORN.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Manuring.—When the ground is hard and dry with frost, every opportunity should be taken for wheeling on manure to the vacant vegetable quarters. At this season of the year the frost generally gives way after a few hours in the morning, and unless it is intended to dig in the manure at once, it should be evenly spread over the surface in preference to allowing it to lie in heaps for an indefinite time.

The Rubbish Heap.—There has been a considerable collection of rubbish lately, and this should be converted into its most valuable state by burning. Pea and Potato haulm and summer prunings make an excellent base for starting a

fire, which should be kept burning as long as possible by the addition of weeds, rough leaves and any material that will burn and add to the bulk, because this forms an excellent dressing for the garden, containing a considerable amount of potash, a fact which should not be lost sight of in view of the scarcity of potash manures. When all the available rubbish has been reduced to ashes, the heap should be allowed to cool and then be removed under cover until required for use.

The Lime Heap.—About this time, too, the heap where weeds have been deposited for some time should be examined, when it will be found that much of it has become thoroughly decayed forming a rich mould of too heavy a nature to be passed through the fire heap. This should be mixed with fresh lime shells. One ton of lime to eight or ten tons of mould will be sufficiently strong to destroy seeds of noxious weeds. After lying for a few days the heap should be turned so that it becomes thoroughly mixed, after which it is ready for use for all garden purposes where it is desirable to use lime.

Winter Salads.—Lettuces still in the open may be fit for use for some time yet if given a little protection from frost; but it may be advisable to lift a quantity with good balls of soil attached and plant them in cold frames where they can have the additional covering of mats in frosty weather. Endive should be treated in the same way, making provision for having this blanched before use. After transplanting, the plants should be given a good soaking of water.

The Hardy Fruit Garden.

Pruning and Nailing.—Now that most of the foliage has fallen, a start may be made with pruning and nailing. It is generally necessary to look over the fruit trees adjoining the vegetable quarters, first, so that the traffic and clearing away of the prunings is effected before digging is begun. Renew all faulty stakes and ties so that the trees will be secure against wind during the winter. Young standard fruit trees require careful watching, as the rapidly swelling stems are liable to become damaged by the ties being too tight or by chafing on the stakes or supports. The best method of tying I have yet seen is one copied from a garden in the South. Instead of protecting the bark with pads of sacking or cloth, round which the ties are usually placed, a wisp of evenly drawn straw, or, better still, the straw coverings in which wine bottles are packed, are placed horizontally on the stake and stem of the tree, one end being clasped around the stake and the other around the tree, a tie at each end of the straw and one in the middle dividing the tree from the stake, as it were. Two or more of these can be used, according to the length of stem. When these have been properly fixed, it is impossible for the tree to become damaged by rubbing against the stake, and impossible to part company as long as the ties remain good. The support to the tree is rigid, yet elastic enough to allow for all ordinary development of the stem, and it only requires to be seen in use to be generally adopted. Contrary to expectations from this general description, the straw supports are not unsightly, especially if that fine quality of Rye straw used in the packing of bottles of Continental wine is obtained.

Fruit Under Glass.

Late Grapes.—The Grapes still hanging on the Vines will require continuous watching for decaying berries. These should be removed at once, for, if one decaying berry is overlooked, it may be the cause of destroying half of the bunch in a few days. The temperature and atmosphere of the house require close attention at this season when outside conditions are so changeable. A little fire-heat should be applied on dull days and ventilation given sparingly, especially in low-lying, foggy localities. Avoid using water in the houses in which ripe Grapes are hanging, especially late Muscats. Bedding plants and Chrysanthemums are generally found occupying much of the space in vineries at this season, and these must have regular supplies of water. It would therefore be advisable to have the Grapes cut and placed in bottles rather than keep them hanging on the Vines where suitable conditions cannot be given. THOMAS WILSON.

(Gardener to the Earl of Strathmore.)
Glamis Castle, N.B.

THE MANURING OF COTTAGE GARDENS AND ALLOTMENTS

THE excellent leaflet (No. 56) issued by the Board of Agriculture and Fisheries on the above subject contains much useful information.

Of the chief food ingredients required by plants, only three, viz., nitrogen, phosphates and potash, have to be applied directly in the form of manure. Farmyard manure contains all three, but artificial fertilisers usually contain only one or two of the necessary ingredients.

A fourth substance, lime, is required, not so much as a plant food as on account of its action on the soil.

For information as to the principles of manuring and the properties of the different fertilisers, readers are referred to the Board's Leaflet No. 72 ("The Purchase of Artificial Manures").

Farmyard Manure.—The manure at the disposal of the cottager and allotment holder is often poor in quality as compared with farmyard manure made in well-constructed cattle-feeding yards. It is apt to contain too much straw, or other litter, and too little of the animal excreta. In view of the bulk of material applied, therefore, the crop returns obtained from its application are often disappointing.

When the manure has to lie for some time in a heap before application, it should be covered with about 6 inches of soil in order to preserve the fertilising material.

In the case of heavy soils, the manure is best dug in during autumn and winter; in the case of light soils, this should be done in spring, some time before cropping.

The undecayed portions of the manure should preferably be used for the green crops (Cabbage family), the more completely decayed portions for the root, fruit and flower crops.

An average market garden dressing of manure would be about $2\frac{1}{2}$ cwt. to 3 cwt. per rod (30 $\frac{1}{2}$ square yards). A large barrow-load of moderately decayed manure will usually weigh about 1 cwt.

Where the full dressing of ordinary manure cannot be obtained, artificial manures, as indicated below, may be applied.

Potatoes.—Where the crop is grown on the flat, sulphate of ammonia should be applied on the surface just before the first earthing up at the rate of half an ounce per square yard (1 lb. per rod, or $1\frac{1}{2}$ cwt. per acre). Where Potatoes are planted in drills, the sulphate of ammonia may be applied in the drills at the time of planting.

Superphosphate of lime should be applied at the rate of $1\frac{1}{2}$ oz. per square yard (3 lb. per rod,

or $4\frac{1}{2}$ cwt. per acre), and may be forked in lightly before planting on the flat, or applied in the drill at the time of planting; or superphosphate and steamed bone-flour may be mixed in equal proportions and applied when planting at the same rate as in the case of superphosphate alone.

Cabbage Family.—All the members of this group respond to applications of nitrogenous manures.

Sulphate of ammonia should be applied at the rate of half an ounce to three-quarters of an ounce per square yard (1 lb. to $1\frac{1}{2}$ lb. per rod, or $1\frac{1}{2}$ cwt. to 2 cwt. per acre) before the first earthing up, or as soon as growth starts. Where Cabbage crops are slow in "hearting" and Turnip crops refuse to "bulb," phosphates are usually deficient.

per acre), with superphosphate and steamed bone-flour, mixed in equal proportions, at the rate of 1 oz. per square yard. On light soils, liable to dry out, salt may be given with advantage (1 oz. per square yard). These crops should all be manured in the early stages of growth.

Carrots, Parsnips and Beet.—Sulphate of ammonia should be applied at the rate of half an ounce per square yard after singling. Superphosphate and steamed bone-flour, mixed, at the rate of 1 oz. per square yard, should be applied before sowing the seed. On dry soils, 1 oz. of salt per square yard may be applied before drilling.

Lettuce, Spinach and Radishes.—These are greatly helped by applications of sulphate of ammonia, which should be applied at the rate of half an ounce per square yard in the early stages of growth. Where Radishes do not "bulb" readily, superphosphate at the rate of 1 oz. per square yard should be applied to the soil before sowing.

Liquid Manure for Fruit and Flower Crops.—One peck of poultry manure or one peck of sheep manure placed in a forty-gallon cask and filled up with water will, after standing twenty-four hours, make an excellent liquid manure if applied while fruit is swelling and, in the case of flowers, while the blooms are opening; two gallons per square yard should be applied weekly.

Where the above materials cannot be obtained, three-quarters of a pound of sulphate of ammonia and 1 lb. of superphosphate in thirty gallons of water will make a safe liquid manure, which may be applied at the rate of two gallons per square yard.

General Considerations.—The recommendations made above are drawn up to meet the conditions now existing with regard to the supply of chemical manures. Potash salts are hardly obtainable, but wood ashes, which contain potash, should be collected and applied at the rate of 1 oz. per square yard to soil in which Potatoes, Peas, Beans, Carrots, Parsnips and Onions are to be grown. The richest ash is produced by hedge clippings, prunings of fruit bushes, nettles and coarse growing weeds burnt before they are fully ripened. The ash of timber may contain little potash.

Ash must be collected as soon as possible after burning, as rain quickly washes out the potash.

Recent experiments tend to show that members of the Cabbage family can avail themselves of the stores of potash already in the soil to a greater extent than most other crops, and this circumstance should be borne in mind while potash is scarce.

On heavy soils and soils rich in organic matter, basic slag may replace superphosphate, particularly in districts with a good rainfall. The quantity used should be from one and a half times to twice as much as is recommended in the case of superphosphate.



SINGLE ROSE QUEEN OF THE BELGIANS.

The flowers are of a lovely pink shade.

Superphosphate should be applied, alone or in combination with steamed bone-flour, at the rate of 1 oz. per square yard (2 lb. per rod, or 3 cwt. per acre) at the time of planting.

Pea and Bean Family.—A mixture of superphosphate and steamed bone-flour, in equal proportions, should be applied to the ground before or after sowing the seed at the rate of 1 oz. to 4 yards in length of drill. The manure should never be sown in the bottom of the drill so as to come in direct contact with the seed.

Onions, Leeks and Celery.—Sulphate of ammonia should be applied at the rate of half an ounce per square yard (1 lb. per rod, or $1\frac{1}{2}$ cwt.

NATIONAL CHRYSANTHEMUM SOCIETY'S SHOW

THE great annual festival of this society was held at the Royal Horticultural Hall, Vincent Square, on November 9 and 10, and from every point of view—of flower excellence as also spectacular effect—must be pronounced an unqualified success. In each of the three leading classes for Japanese blooms, thirty-six, twenty-four and twelve respectively, Mr. T. Stevenson, gardener to E. G. Mocatta, Esq., Woburn Place, Addlestone, demonstrated his prowess and skill by carrying off the leading prizes, while successful also in other directions. In very few classes were there no entries, and in most the competition was keen. Freshness of blooms was general, and rarely has finer quality been staged. The outstanding feature of the exhibition was the magnificent group from Mr. Philip Ladds. In this was seen the highest cultural skill wedded to a perfectly artistic treatment, a magnificent effect resulting.

CHALLENGE TROPHY CLASS (AFFILIATED SOCIETIES).

For twelve vases of cut Chrysanthemums (three each of Japanese, incurved, single, and Anemones or Pompons, each vase to contain five blooms) the first prize was won by the Finchley Chrysanthemum Society, some half dozen growers contributing. Of incurved sorts H. W. Thorp (white), Frank Tristan (bronze), Descartes (crimson Anemone), Mrs. R. C. Pulling (yellow Japanese), Queen Mary (white Japanese), Romance (golden incurved), R. Luxford (crimson Japanese) and Mme. Elise Dordan were representative vases.

HOLMES MEMORIAL CHALLENGE CUP.

In the leading class for thirty-six Japanese blooms, distinct, two exhibitors staged collections, the premier award deservedly going to Mr. T. Stevenson, gardener to E. G. Mocatta, Esq., Woburn Place, Addlestone, for a particularly fine exhibit. The front row was made up as follows: Mrs. Algernon Davis (pink), Edith Cavell (bronze), William Turner (white), Bob Pulling (yellow), Mrs. H. Tysol (primrose), General Smith-Dorrien (fawn), Daily Mail (brunzy yellow), Miss E. A. Tickle (deep pink), Mrs. G. Drabble (white), Charlotte E. Soer (yellow), Mrs. H. J. Stratton (amaranth) and Miss A. E. Roope (orange golden). This was a magnificent lot throughout, the blooms perfectly fresh and admirably staged. Mr. G. H. Clack, gardener to Lady Esme Gordon, Paxton Park, St. Neots, was placed third for a collection of medium quality.

For twenty-four Japanese, distinct, Mr. Stevenson was again first against four competitors, all of whom staged well. A select few included Frances Jolliffe (yellow, striped red), Reginald Vallis (amaranth), Queen Mary (white, very handsome), Frank Ladds (golden, with broad petals), His Majesty (grand crimson), William Turner (white), Lady Talbot (soft yellow, narrow petals and very deep flower), Bob Pulling and Miss E. A. Roope (both rich yellows). The cultivation showed masterly treatment. Second, Mr. A. E. Hewlett, gardener to H. Balfour, Esq., Headington Hill, Oxford, whose Sir Frank Crisp (chestnut red), Mrs. R. Luxford, Mrs. G. Drabble and Queen Mary were very good. Third, Mr. J. Simon, gardener to C. W. Mann, Esq., Bexley.

Mr. T. Stevenson was again in the place of honour for twelve Japanese, distinct, against eight competitors, and in this way demonstrated his skill and prowess as a grower of these flowers. William Turner (white), Mrs. A. F. Tofield, Lady Talbot, Bob Pulling and Queen Mary were his best blooms. Second, Mr. H. Blakeway, gardener to W. H. Allen, Esq., Bromham House, Bedford, whose blooms of His Majesty, Mrs. H. Kinney, Queen Mary and Frances Jolliffe were very fine. Third, Mr. J. Simon, gardener to C. W. Mann, Esq., Bexley.

For six Japanese, distinct, eight again staged, Mr. H. Blakeway, gardener to W. H. Allen, Esq., Bromham House, Bedford, taking first place with a nice lot, of which Frances Jolliffe, Mrs. R. C. Pulling and Queen Mary were the best. Mr. J. Simon, gardener to C. W. Mann, Esq., Bexley, was second, Mrs. Keith Luxford (white), F. S. Vallis (golden) and His Majesty (crimson velvet) being very fine. Mr. A. E. Hewlett, gardener to H. Balfour, Esq., Headington Hill, Oxford, was third.

For one vase of three Japanese blooms, white, seven staged, the first prize being awarded to Mr. T. Stevenson, gardener to E. G. Mocatta, Esq., Woburn Place, Addlestone, for three handsome blooms of William Turner, a grand incurved white of magnificent proportions. Mr. J. Small, gardener to J. Temperley, Esq., Bletchingly, was second with the same variety, Mr. H. Blakeway being third with Queen Mary.

For one vase of three yellow Japanese, Mr. H. Woolman, Sandy Hill Nursery, Shirley, near Birmingham, was first with Shirley Golden; second, Mr. J. Small, gardener to J. Temperley, Esq., Bletchingly, with the golden William Rigby; third, Mr. A. E. Hewlett, who staged Mrs. Lloyd Wigg. Seven staged.

Twenty-four incurved blooms, distinct, was a most attractive class, Mr. A. B. Hudd, gardener to Mrs. Chalmers, Farrants, Bickley, Kent, being first with an admirable lot, Hanwell Glory (bronze), Buttercup, Godfrey's Eclipse (golden), White Empress, Edwin Thorp (white), Pantia Ralli, Mrs. P. Wiseman (palest primrose) and J. Wynne (pink) being some of the better blooms; a really superb lot. Second, Mr. E. Dove, gardener to H. Bennett, Esq., Bickley, Kent; third, Mr. G. H. Clack, St. Neots.

For twelve incurved blooms five exhibitors staged, Mr. Hudd again occupying the premier place and showing well. Nothing finer was noted than in the twenty-four. Mr. Dove followed as a good second.

Mr. Dove was first in the class for six incurved, Clara Wells and Calypso (bronze) being good. Mr. A. B. Hudd was second, his Calypso and Mrs. P. Wiseman being well-nigh perfect.

For a collection of disbudded blooms in vases the only exhibitors were Messrs. Cragg, Harrison and Cragg, Heston, Middlesex, who set up nine superb vases of flowers: Pioneer (gold incurved), Miranda (chestnut single), E. Cox (white incurved), Max (red and gold single), Crimson King (decorative), Yellow Money-maker, Mrs. Roots (pure white), T. Page (pink) and Portia (reddish single); a very nice lot.

This firm was again alone for a collection of partially disbudded or undisbudded blooms, showing singles chiefly and Mabel Weston (white, Anemone formed); also for six vases of Anemone blooms, showing Aphrodite (deep lilac pink) and Cordella (a quaint mixture of red and fawn, with gold tips). Both are good in the Anemone-flowered class.

Three staged six vases of Pompons, the first prize deservedly going to Mr. F. Fitzwater, gardener to C. Urban, Esq., Bushey Lodge, Teddington, who showed Prince of Orange, Mme. Elise Dordan, Black Douglas, Mme. Martha, Mr. Saby (golden, very fine) and William Westlake, among others. Mr. A. Robertson, gardener to F. J. Yarrow, Esq., St. John's Wood Road, was second.

For a display of singles the last-named exhibitor alone staged, and gained first prize with a nice assortment, Mensa, Glorious, Molly Godfrey and Sussex Yellow being some of the best.

For six vases of large-flowered singles five entered, the whole making a superb display. Of these, Mr. A. B. Hudd, gardener to Mrs. Chalmers, Farrants, Bickley, Kent, was deservedly placed first with a highly meritorious set comprising Kathleen Wells (crimson), Isabel Felton (yellow), Bertha Fairs (terra-cotta), Alberta (distinct red tone), Caledonia (amaranth pink) and Stewart Smith (a magnificent pure white). Finer flowers than these have never been staged. Second, Mr. A. Robertson, gardener to F. J. Yarrow, Esq., St. John's Wood Road, whose Mrs. W. Smith (pure white) gained a first-class certificate. Sussex Yellow and Sandown Radiance (crimson scarlet) were other notable varieties.

FLORAL DECORATIONS.

For a floral decoration of Chrysanthemums for a dinner-table only one exhibitor came to the front, Mr. D. B. Crane, Woodview, Archway Road, Highgate, securing the first prize for an admirable arrangement of white, yellow and red Chrysanthemums, with coloured Croton leaves and a very slight addition of Asparagus Fern; a delightful arrangement in perfect harmony throughout.

For one vase of single Chrysanthemums, with foliage, Mr. D. B. Crane was again first, using scarlet, yellow, pink and white flowers, with Asparagus and bronze foliage. Mr. T. Stevenson was second with a larger arrangement and bigger flowers. Four competed. All the vases were, in our opinion, over-large from the utility standpoint, though no limit is imposed by the society.

For one vase of large exhibition blooms four entered, Mr. T. Stevenson, gardener to E. G. Mocatta, Esq., Woburn Place, Addlestone, taking first prize with a magnificent vase of the white William Turner, with which Bracken and Scarlet Oak were associated. Mr. J. Simon was second, using Frances Jolliffe and sprays of Scarlet Oak.

Mr. D. B. Crane was first for a basket of Chrysanthemums, employing red, white, terra-cotta and yellow, with sprays of Asparagus Fern and Dracena. Four competed.

For three vases of Chrysanthemums Mr. Stevenson took the lead, his outstanding vase being of the original types of incurved Mrs. G. Rundle and Mrs. G. Glenny. These were refreshing to see again. Mr. D. B. Crane was second. All were highly decorative and good.

For one vase of singles (amateurs) Mr. W. J. Day, Walthamstow, was first.

Mr. J. Vanstone, gardener to Mr. G. Richardson, Tulse Hill, was first for one vase of five blooms of Japanese. The variety was Converse (gold and red).

These vases contributed much to the spectacular effect of a good meeting.

NON-COMPETITIVE EXHIBITS.

Mr. Philip Ladds, Swanley, was awarded a large gold medal for one of the best groups ever seen, and arranged by Messrs. R. F. Felton and Sons, the Court Florists, lacked nothing in artistic effect. Fifty huge blooms of Mrs. Gilbert Drabble (white) were in the centre. Sandown Radiance (brilliant red single), Phyllis Cooper (golden single), Dr. Stairs (a strangely quilled flower), Rosamund (old rose, very distinct), Mrs. Sargent (new green-flowered variety) and Edith Dimond (single golden bronze) were among the best of the others. Backed by stately Palms and done on a lavish scale, a most imposing result was secured.

Messrs. W. Wells, Limited, Merstham, received a gold medal for a grand lot of flowers, a centre of some three dozen of the fine exhibition white Louisa Pockett being grand.

Messrs. H. J. Jones, Lewisham, secured a small gold medal for a nice lot, Mrs. Kinsey (white), Mrs. R. C. Pulling (grand yellow), Bob Pulling and Mrs. Tofield (red, gold reverse) being some good things.

Messrs. Cragg, Harrison and Cragg, Heston, received a silver-gilt medal for a handsome lot, in which Snow Queen, Cordelia (fawn and red), Mabel Weston (white), Ceres

(yellow) and Aphrodite (deep lilac pink), all of the Anemone-flowered class, were excellent.

Mr. Norman Davis, Framfield, received a small gold medal for his group, Mona Davis (pink exhibition variety), Mrs. Algernon Davis (first-class certificate, clear pink Japanese), Market Bronze (golden bronze) and Sandown Radiance being among the indispensables.

NEW CHRYSANTHEMUMS.

Cordelia (Anemone), fawn and red, with gold-tipped boss.

Thora (Anemone), rose, yellow centre.

J. H. Blythe (exhibition Japanese), bright chestnut. These were from Messrs. Cragg, Harrison and Cragg, Heston.

Thomas Bodman (Japanese), rich crimson, gold reverse. From Mr. W. Baxter.

Shirley Golden, deep yellow, said to be a sport from William Turner. From Mr. H. Woolman, Shirley, near Birmingham.

Mrs. Algernon Davis (Japanese), clear pink, large exhibition variety. Shown by Mr. Norman Davis, Framfield.

Mrs. W. Smith, giant single white. From Mr. A. B. Robertson, gardener to Mr. F. J. Yarrow, St. John's Wood Road.

Alice Jinks (Japanese), ruby crimson. From Mr. Walter Jinks.

Alice Benson (Japanese), ivory white.

Golden West.

Mary, orange yellow.

Baby Felton, rosy cerise. The last three were Pompons. From Messrs. W. Wells, Limited, Merstham.

Edith Dimond (single), golden bronze. From Mr. Philip Ladds, Swanley Junction.

The whole of the above received the first-class certificate of the National Chrysanthemum Society on November 9.

SOCIETIES

BOURNEMOUTH SHOW.

ON November 7 and 8 the thirtieth autumn exhibition of flowers, fruits and vegetables was held in the Pavilion of the Winter Gardens, and was attended by large numbers of visitors, who greatly appreciated the charming floral displays, luscious fruits and solid, fresh vegetables. The fine exhibits of Mr. Vincent Slade of Taunton, who staged grand masses of Zonal Pelargoniums, and Mr. V. de C. Hughes of Broadstone, Dorset, who had a large group of single-flowered Chrysanthemums, did not receive the recognition they so well deserved. Messrs. Allwood Brothers, Hayward's Heath; Messrs. Stuart Low and Co., Bush Hill Park; Messrs. Watts and Sons, Limited, Bournemouth; and Messrs. R. Veitch and Son, Exeter, staged grand groups of Carnations, Chrysanthemums, shrubs and Apples respectively.

COMPETITIVE EXHIBITS.

The Parks Nurseries (manager, Mr. F. W. Welch) put up a very imposing and effective group of miscellaneous plants and cut blooms, chiefly of *Oncidiums*, *Begonias*, *Ferns* and *Palms*, and won the society's gold medal.

Major S. F. Chichester, Embley Park, Romsey (gardener, Mr. A. W. Hall), won in the class for eighteen cut blooms of Japanese Chrysanthemums, distinct, on a stage space 6ft. by 4ft., with a groundwork of autumn foliage. Queen Mary, His Majesty and Master Rex were the leading varieties. W. F. Dickinson, Esq., Taunton (gardener, Mr. B. Dacre), was a close second.

Mr. Hall was the winner in the class for nine vases of Japanese, putting up similar varieties to those last named. Mr. Dacre was second.

Mr. Hall had the best nine vases in nine distinct varieties, Japanese, having similar varieties. Mr. Dacre was second.

W. H. Thomson, Esq., Bournemouth (gardener, Mr. H. Trask), led in the class for twelve cut blooms, Japanese, on boards, second honours going to Major Tinker, Christchurch (gardener, Mr. W. Weaver). The blooms were fresh and of good colour.

Mr. Weaver won the first prize and silver challenge cup in the class for two vases of Japanese blooms on long stems, two distinct varieties, Mrs. Gibson being especially fine.

Miss Martin and Miss H. C. Hull of Bournemouth both staged excellent collections of single Chrysanthemums.

Mr. Trask was awarded the first prize and silver challenge cup for a group of single and Japanese flowered Chrysanthemums.

The floral decorations were quite charming, and there was keen competition. Mrs. L. Cape, Ferndown, Dorset, won first honours for a dinner-table decoration, Mr. J. Cape, Wimborne, and Mr. G. Barge, Bournemouth, being second and third respectively.

In the class for a table to be entirely covered with foliage, rocks and flowers or plants, Mr. G. Garner, Highcliffe, was first. Mr. F. W. Welch was second.

Messrs. G. Watts and Sons, Bournemouth, had the best shower bouquet, and Mrs. Shave, Ensbury Park, the winning basket and epergne of flowers and autumn foliage.

FRUIT AND VEGETABLES.

Grapes and Apples were well shown. Mr. A. W. Hall won first honours with splendid bunches of Muscat of Alexandria in the class for two bunches of white Grapes, and also in the open class for two bunches of black. Mr. G. Garner was second.

In another class for two bunches, black, the Rev. Jones Bateman led; second, Mr. George Garner.

THE GARDEN.

No. 2349.—Vol. LXXX.

NOVEMBER 25, 1916.

NOTES OF THE WEEK

THERE is still so much waste land in and around our large towns that we are constantly being asked why it is that landowners are sometimes unwilling to allow the vacant building sites to be taken over by allotment holders. The reason is that the law gives to every allotment holder the right to claim compensation for disturbance when he is asked to go, and however remote it may be, the landowner sees before him a possible crop of lawsuits; so the land remains an eyesore to the surrounding houses and a source of loss and expense to the landowner until built upon.

The Vacant Land Cultivation Society.—In London the foregoing difficulty is overcome by the formation of the Vacant Land Cultivation Society; offices, 14, Buckingham Street, Strand, London, W.C. This society, which receives financial support from the Board of Agriculture, through the Treasury acts as intermediary between landowners and land-servers, giving the owners a guarantee that they shall have their ground back in an improved condition whenever needed. The society provides the means for fencing off spaces, supplying water, and, where necessary, provides tools, seeds and plants, with expert instruction in the best and most profitable methods of cultivation. So successful is the society that the number of plot-holders has been more than doubled since the beginning of the year.

The Cultivation of Belladonna.—In view of the exceptional demand for this drug herb, the article on its cultivation in the pages of this issue will be perused with unusual interest by many readers. From this account it will be seen that Mr. Beetham Wilson of Dorking is getting capital crops of Belladonna off ground that had been lying idle for many years. However, little has been done on the ground apart from keeping the weeds within reasonable limits. The importance of the subject will easily be seen if we mention that in a letter to

the Secretary of the Herb-growing Association from the House Physician of one of our large hospitals it is stated that a preparation of Belladonna, of which they use much, now costs £8 for the quantity formerly procurable at 7s. This is one instance of many from similar sources.

Sparaxis in the Open.—It may interest readers abroad as well as those at home to see how well Sparaxis can be grown and flowered in the open in this country. The bed in the accompanying illustration has been planted many years and has never been disturbed or manured, yet it never fails to produce a profusion of blossom each succeeding year. But this is in a South

Wisley, figured and described in our last issue. If this had been the result of artificial hybridisation, we should have heard a great deal about the skill of the hybridist. But, alas! its origin is unknown, beyond that it occurred as a chance seedling—the result of a pure accident!

The Strawberry Tree (Arbutus Unedo).—When one considers the beauty of this evergreen through the autumn months when in flower and fruit, it is surprising that it is not more planted. In the mixed shrubbery, given space to develop, it quickly grows into a handsome bush. Even with its pleasing green foliage there is much about it to admire. Perhaps when growing on grass a shapely specimen looks its best. We lately saw in a public street a specimen some 25 feet high and 18 yards in diameter. The tree had seven stems coming away from its base, and a glorious sight it was on a steep hill which no doubt had at one time been private property.

Plumbago Larpentæ. The hardy blue Leadwort is so gloriously flowered this season that brief comment upon its garden value is certainly well deserved. This Plumbago, which withstands the hardest winter, has made great masses several feet across, and is now literally crowded with the deep gentian blue blossoms. It is certainly one of the



A BED OF SPARAXIS IN A SOUTH DEVON GARDEN.

Devon garden, where many plants are grown in the open that in colder districts have to be grown under glass. The Sparaxis flowers in late spring, and in favoured parts bulbs may be planted now.

A Seedling Berberis from Wisley.—In these days when we hear so much about the science of plant-breeding it is really surprising to note that many of the finest hybrids among flowering plants originated as chance seedlings. *Primula kewensis* affords a very good example, but quite recently we have had another in the form of *Berberis rubrostilla*, an extremely beautiful plant from

finest rock plants extant, and its lateness in flowering makes it doubly valued. After the blossoms are over, the foliage turns a brilliant reddish purple previous to the shedding of the leaves. This colour effect is almost as pleasing as the intense blue of the floral display. The plant prefers to be grown in full sun, with an occasional top-dressing to maintain its vigour. It is, indeed, a plant for every rock garden.

* * * Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

The Ploughman's Spikenard.—The botanical name of Ploughman's Spikenard is *Conyza squarrosa*. It is said that this Spikenard is hung up in many cottages both here and in France to drive away gnats and other insects.—C. T.

Butterflies on Buddleias.—Although our nurseries are not situated in the North of England, our Highgate Nurseries being so close to London, we think it might be of interest to mention that we have seen a number of butterflies during the season, and besides the white butterfly, the Chalk Hill Blue, Large Sulphur, Peacock and Small Tortoiseshell. These we have noticed in particular on various bushes of Buddleias. There is no doubt that this beautiful flowering shrub is a very great attraction to butterflies. We do not think there is anything more beautiful on a summer's day than to see a number of these shrubs in flower with the various coloured butterflies hovering about them. While on this subject, we would mention that there are also numbers of squirrels, owls, seagulls and other interesting birds, to say nothing of dragon-flies and other winged insects. The reason of this, no doubt, is on account of the exceptional country-like surroundings—nothing but open fields, woods and several large lakes. It is an interesting walk at any time.—W. CUTBUSH AND SON.

The Name "Formal Garden."—The garden of this house has been called by that simple and right name for 300 years, and to describe it as "formal" is needless and redundant. This useless term was applied to the garden by two men who wrote a book about gardening, and, knowing nothing of it, supposed that any attempt to promote wild gardening meant the abolition of a garden near the house.—WILLIAM ROBINSON, *Gravetye Manor, East Grinstead, Sussex.*

Clematis Vitalba in Seed.—The wild Clematis of our chalky uplands is now covered with its cloudy seed-masses. The recent rough weather and torrents of rain have made them look as if clogged together, but if one waits for a dry day and brings a branch or two indoors to a warm room a transformation takes place and the clogged mass seems to blossom forth into a strange kind of beauty. Each seed of the number that cluster together has a feather, like a little squirrel's tail, about an inch long. When it dries, each hair in every feather stands apart, and the whole thing forms a little cloud of beautiful detail.—G. J.

Aster Amellus from Seed.—One of the brightest groups in the garden a few weeks ago was a bed containing about fifty Aster Amellus seedlings. The flowers vary greatly in colour, shape and size, all intermediate shades between pale lavender and deep violet; some are of the starry type, others have good broad petals. The earliest to flower was in full bloom by August 20; the latest is still in flower. It is surprising that more amateurs do not take up the fascinating and inexpensive hobby of raising hardy perennials from seed. There is always the chance, if the seed is procured from a reliable source, of some-

thing really good turning up one day, and a large border can easily be filled at the cost of a few shillings by raising the plants from seed. By far the greater majority of our herbaceous perennials will flower in from twelve to fifteen months from the time of sowing. The choicer sorts are best raised in a cold frame. The work of shading and watering is simplified, and the results are more certain. In the open border, in spite of every precaution, slugs will often take more than a fair share of the precious seedlings. From the middle to the end of May is a good time for sowing.—L. B.-W., *Birdwood, Wells, Somerset.*

"Honour to whom Honour is Due."—In THE GARDEN of November 18, "H. P.," in some notes on Nerines, refers to me as the raiser of Nerine Rotherside. This is a mistake, and I

I would say that no intuition was in question, but rather a kind of reasoning, as follows: Here is an illustration that, so far as it does represent, clearly serves very well to represent a plant with which I am familiar, viz., *Pæonia officinalis* var. *lobata*. Can it also represent, equally well, another species that belongs to a distinct group and is not very nearly allied to it? I could only conclude that it did not do so. Again, does it seem to represent anything that is correctly referred to *P. peregrina*? In response, again my judgment told me that any *peregrina* ought to be unlike the illustration. I do admit, of course, that without complete evidence there is possibility of error, for remarkable cases of mistaken identification have been known to happen. Before me, however, I have a photograph of the indubitable *P. officinalis* var. *lobata*, and comparing this with the illustration I can see no difference. Moreover, I have asked a lady friend accustomed to plants to look at these two representations, and her reply is that they are exactly the same, so that if I have made a mistake there is quite good reason for having done so, and I make my best apology. Until flowering specimens are in evidence it is hardly worth while to say more. I might, however, remark that Mr. Gifford is in error when he says that the foliage of *lobata* is finely lacinated. It certainly cannot answer that description. A fairly good figure, but without very perfectly giving the charm of the flower, will be found in "Sweet's British Flower Garden," t. 70, which could, no doubt, be seen at Vincent Square. It is perfectly consistent for me to say that *Pæonia* is deficient in floral botanical characters and yet to be able to point out a special characteristic that any one or more of the species may possess. I daresay Mr. Gifford would kindly forward me a specimen of his plant when the flowering time comes, for in case of difference I should not like to be unacquainted with it, having made a special study of the genus, both living and dried, a few years ago. With the Editor's favour, a report shall then appear in THE GARDEN which will be a statement of fact, and not an opinion as to what an illustration represents.—

R. IRWIN LYNCH.

Rhus Toxicodendron and Ampelopsis Hoggii.—Regarding Mr. Skarratt's letter in THE GARDEN of November 11 that *Ampelopsis Hoggii* was synony-

mous with *Rhus Toxicodendron*, the Poison Ivy of North America, I am afraid he is thinking of the variety which is sometimes sent out as *Ampelopsis japonica*. As to *A. Hoggii*, I may say that we have grown it for a number of years now, and the plants and foliage of it have been worked among by different men with no ill-effects. Of course, when I said it was a variety to be recommended, I was writing regarding its merits for autumn colour, which I stated changed from a bright green to gold, with the addition that it clings to the wall like Ivy. I have beside me Professor Lindley's "Treasury of Botany." In it there is a small block of *Rhus Toxicodendron*, which differs from *A. Hoggii*. On it the leaflets are smooth-edged, while on *A. Hoggii* they are five and six toothed. In Sir Herbert Maxwell's interesting work, "Memories of the Months"



PÆONIA LOBATA: FROM THE FIGURE IN "SWEET'S BRITISH FLOWER GARDEN."

have never pretended to have raised it. I bought the entire stock of it from the actual raiser, Mr. J. Elliott of Hassocks, near Brighton, some years back, and it was introduced into commerce by my firm a season or two ago. I greatly dislike taking the credit which justly belongs to others, so if you can find room for this disclaimer I shall be very greatly obliged.—F. HERBERT CHAPMAN.

Pæonia peregrina Gifford's Variety.—Mr. Gifford must please forgive me if I wrote too strongly in accordance with the faith that was in me with reference to the plant represented by his illustration, upon which I was asked to express an opinion. Of course, I could only judge so far as form could indicate in black and white. He wishes to ask me by what intuition I came to the conclusion that the picture really represented *P. officinalis* var. *lobata*. In reply

(fifth series, page 162), he deals with *Rhus Toxicodendron* as one of the plants to be avoided, and remarks that gardening journals have of late been drawing attention to the danger of planting this Poison Ivy. He says that it is indeed a most virulent poison, its mere presence in a room causing serious discomfort to some persons, and the handling or cutting of it being followed by very painful consequences to others. The danger is more insidious because of the general resemblance of the plant to the Virginian Creeper group; indeed, it is, or used to be, sent out as *Ampelopsis japonica*, although *Ampelopsis*, being a true Vine, belongs to a very different Natural Order to that of *Rhus*. The confusion is increased by the splendour of the Poison Ivy in autumn, when the foliage fades through brilliant tints of yellow and scarlet. Now, I have yet to see a touch of scarlet in *A. Hoggii*, which I again describe as a bright green turning to gold. I thank Mr. Skarratt for his remarks, and agree with him that no matter how beautiful a plant may be, if it is likely to prove a danger to the community it ought not to be universally grown, but placed in some safe corner of a botanic garden.—JAMES McGRAN, *The Gardens, Coodham, Kilmarnock*. [A popular confusion exists between *Rhus Toxicodendron* and the harmless genus *Ampelopsis*. Confusion becomes chaos when so many nurserymen send out *R. Toxicodendron* under the misleading names of *Ampelopsis Hoggii* and *A. japonica*. *R. Toxicodendron* is the true Poison Ivy, and like its variety *radicans* climbs by means of aerial roots, attaching itself to walls and trunks of trees like the common Ivy, in the manner described by our correspondent of the alleged *Ampelopsis Hoggii*. The *Ampelopsis* or Vine has mostly single leaves and clings by means of its tendrils. *R. Toxicodendron* is always trifoliate, and never has single leaves or tendrils. If our correspondent will kindly send specimens we shall be pleased to identify them.—ED.]

Schizostylis coccinea in a New Zealand Garden.—I am always very interested in reading your plant notes, and wonder if anyone in England ever grows *Schizostylis coccinea* in quantity. With me it makes a glorious show in the late autumn, looking particularly well when planted near *Aster ericoides*. It is absolutely hardy, increases very readily and, if divided every other year, needs hardly any attention, except to pull out boldly the old flowering stems in spring. One of its chief charms is its rich, glowing spike of colour, and, another, that it is excellent for cutting. I use it for an edging to mixed borders on a lawn or beside grass paths. Our Canterbury climate is fairly severe; we have hard frosts every winter and sometimes snow.—MARY POULTON, *Christchurch, New Zealand*. [We are interested to hear of our correspondent's experience of this brilliant-flowered plant. It is fairly freely grown in England, but, obviously, not with the same rampant success as in New Zealand. In England during severe winters it gets cut badly, and often the flowers suffer from frost before they have time to expand. We find it most vigorous in cool, moist loam, giving the best spikes when the plants are singly grown—not in clumps; but this may be quite unnecessary in the case of our correspondent. We like the idea of associating it with *Aster ericoides*, the two in quantity affording a fine contrast. In the warmer parts of the British Isles and near the coast-line the *Schizostylis* is better suited than further inland, where pot culture has often to be resorted

to in order to get it to flower. In these circumstances the greater brilliancy and freedom is in measure denied us here, and specimens grown under glass are not so showy as those grown in the open.—ED.]

Under an Ancient Apple Tree "Somewhere in —."—During the hottest days of the past summer I spent most of my time under an ancient Apple tree about eighty to a hundred years old. It is Mushroom-shaped, some 17 feet high and 25 feet in diameter. Its branches have borne (and still continue to bear in most seasons) the burden of many bushels of excellent Apples, so that the ends dip to about 2 feet above the ground on the south side and 3 feet or 4 feet on the northern. The tree thus forms a large natural umbrella, which the most skilful modern garden artists in wire and wood cannot rival, clever though they are. Blackbirds make their home every spring in the hollow trunk, in spite of all efforts to discourage them, and greentits have a

it is one of those varieties which, like the better-known Lucifer, require a light, warm soil if they are to do well. Bedouin is a good "five bob" show flower; that pretty well sums up its merits. Seville, Croesus and Challenger are in a different class. The second of these three is, however, far from being really "top hole" on account of its flannel-like perianth; but its immense, wide-spreading cup is so good that it carries its perianth on its back. I know the combatants in the late Daffodil war will like to read this quotation from the letter: "I can assure one of the belligerents that an experience of some of our strong, dry north winds would convince him of the dispersal of pollen by that means. As I am strictly a non-combatant, however, in this contest, I shall say no more."—JOSEPH JACOB.

Hybridising Nerines.—This is an interesting pastime for the lover of autumn bulbous flowering plants, and I have been amusing my spare moments with it for some years past. There are certain



"ANNE AMATEUR'S" ANCIENT APPLE TREE.

nest somewhere up in the branches, about which I am careful not to be too inquisitive. My particular crony, the robin, comes and carries on occasional conversations with me (I have learned a good deal of bird language). I do not like to be suspicious, but he has rather a habit of "dropping in" at meal-times, just like some humans. As I lazily lounged in my modern hammock chair, and looked up at the blue sky through the grey-lichened branches and green leaves, I wondered whether the next generation will enjoy a similar refuge from the noontide heat beneath the Apple trees we plant now. Much I fear our present-day scientific pruning will leave no such lovely legacy.—ANNE AMATEUR.

Daffodil Bedouin and Pollen Dispersion.—An interesting letter has reached me from Melbourne in Australia asking how this variety "does," why it is not more frequently mentioned in accounts of shows, &c. I have never grown it myself, but am pretty sure that

fine standard varieties that are essential to the hybridist, and the problem is to bring these, the early and the late, more or less into line as far as their time of flowering is concerned. It is a fairly easy matter to get the late ones in bloom earlier by putting them into a warm temperature, and by this means such things as *Mansellii* and *Bowdenii* can be rushed along; but when it comes to retarding early plants, the task requires more ingenuity and resource. However, by dint of various devices, such as keeping them under a north wall, or even placing them in a cool shed when just bursting bud, I have such excellent and indispensable breeding things as *Fothergillii* major, *Rotherside*, and one or two others only just in flower now (November 5), and splendid spikes, too, not weedy-looking ones. I thought the above might prove a useful hint to others who, like myself, are engaged in the cross breeding of this most charming and fascinating of autumn greenhouse plants.—F. H. C.

THE ROSES OF OCTOBER AND NOVEMBER

BY "WHITE LADY."

"The mellow year is hasting to its close;
The little birds have almost sung their last,
Their small notes twitter in the dreary blast—
That shrill-piped harbinger of early snows;
The patient beauty of the scentless Rose,
Oft with the morn's hoar crystal quaintly glass'd
Hangs a pale mourner for the summer past,
And makes a little summer where it grows."

("November.")—HARTLEY COLERIDGE.

"WHAT a lot of Roses you still have—real summer-like crimson Roses, too," was a comment made to me by a visitor from the North on the last day of October. The drawing-room was, indeed, as full of Roses that day as it had been at midsummer, and, thanks to the ever-flowering Richmond and Dora Van Tets, there was a big bowl of fragrant red Roses which elicited this surprised pleasure. A basket of Mme. Edouard Herriot mixed with the single Irish Elegance and buds of the China Comtesse du Cayla showed how the rosy terracotta shades of these varieties are not only retained,

Wakefield Christie Miller is another Rose whose colouring is certainly more pleasing now than in the summer. This has been too wet an autumn to show the late-blooming qualities of the Rose at its best. The full varieties cannot open when the air is saturated with moisture. On the other hand, I think the nights have been warmer than usual, and this has helped the single and semi-double sorts to come to perfection in spite of the wet.

Rosa rubella, one of the Rosa spinosissima alpina hybrids, and therefore usually a summer flowerer only, has been blooming quite freely right on to the middle of November; and the deliciously fragrant Scotch Rose Stanwell Perpetual, which opened its first flowers on May 23 is still making new shoots crowned with delightful blush rose-buds, and truly "makes a little summer where it grows." This Rose should be in every garden.

The Hybrid Tea and Pernet Roses that have kept up the best supply of blooms of fair quality well into November are: Crimsons—Richmond, Dora Van Tets and Laurent Carle. Pinks and salmons—Countess of Shaftesbury, Mme. Leon

Perle d'Or, have produced quantities of their exquisitely shaped and tinted little buds all through the autumn.

On the rock garden the cherry-coloured single indica Miss Lowe is specially bright, and the Lawranceana minima is covered with buds and tiny open blooms.

Among climbers, the Musk Hybrids Pink Pissardii and Belle Vichysoise seem likely to be the latest in flower; their large panicles of pale pink blooms have still a summer-like effect.

A hedge of Rugosas, composed of the varieties Mme. Georges Bruant, calocarpa and Blanc Double de Coubert, though it has ceased to flower, has been very effective in the autumn garden owing to the foliage having turned a soft golden yellow and to the quantities of bright red berries the plants have produced.

Rosa nitida is already losing its brilliant scarlet autumn foliage, but the stems and berries will for some time yet give a bright patch of colour in the border.

"Le roi est mort. Vive le roi." Our thoughts must not be altogether occupied with the observation of the lingering Roses of 1916, but must be looking forward to and making preparation for the Roses of 1917. Old and feeble plants should be taken out and fresh turfy loam dug into the places before young and healthy plants are substituted. The thinning and training of summer-flowering climbing and pillar Roses, where it has not yet been finished, must be pushed on as quickly as possible. Any new varieties that are to be tried should be ordered from the nurserymen at once and got in without delay, and everything possible be done to ensure the beauty of our Rose gardens next summer.

The fact that garden labour is now very limited may lead many amateurs to fill their beds and borders with permanent plants instead of with such plants as Geraniums, Heliotropes and Fuchsias, which have to be propagated each autumn, kept in frames or greenhouses through the winter, and planted out in early summer. Those contemplating such a change cannot do better than order some of the best bedding Roses. If for small beds, the Polyantha Pompons are most appropriate. Mrs. Cutbush, pink; the Orleans Rose, rose colour; Katherine Zeimet, white; and Jessie, light crimson, are varieties of good habit that keep up a succession of blooms long after the frost has killed and blackened the tender bedding plants. For larger beds the free-flowering Chinas and Teas are very satisfactory, and if carefully chosen with a view to beauty of foliage as well as continuity of flowering they will be a source of pleasure from May to November.



ROSE GARDEN AT THE GABLES, HIGHGATE.

but sometimes even enhanced in autumn. There is no doubt that many Roses are more lovely in colouring in autumn than they are earlier in the year. As Cowper has it: "The charms of the late-blooming Rose seem graced with a livelier hue." And notwithstanding the richness of colour in these late Roses, there is also a softness which makes it possible to put together in bowls and vases Roses which in summer-time we should keep rigorously apart.

Those of a magenta shade, such as Mrs. Arthur Coxhead, lose much of their harshness, and in the subdued sunlight of October and November appear almost crimson. The bright pink Mrs.

Pain, Papa Gontier and Ophelia. Edu Meyer, though covered with flowers, has been too much affected by the wet to be altogether satisfactory. Yellow—Rayon d'Or. Terra-cotta.—Mme. Edouard Herriot; this Rose has flowered continuously since early in May.

Among the Teas and Chinas the best blooming varieties have been: Teas—Lady Hillingdon, Mrs. Herbert Stevens, G. Nabonnand, Mme. Antoine Mari and Corallina. Chinas—Comtesse du Cayla, Arethusa, Queen Mab and Pink Monthly.

The Hybrid Perpetual Frau Karl Druschki flowered well till the end of October. The two Polyantha Pompons, Cecile Brunner and

A HIGHGATE ROSE GARDEN

For about a decade and a half of years Roses have been an important feature of The Gables. Mrs. Clarkson, the owner, and Mr. Hunt, the gardener, have had the Roses' wants constantly watched and generously supplied. Two systems of planting the beds are followed: One variety to a bed, or the bed is limited to two or three sorts, these being planted in rows rather than in blocks. There are numerous varieties, but two that do remarkably well are Harry Kirk and Lady Ashtown. Unfortunately, the beds of red varieties do not show up, though the beds were full of flower. Many pillar Roses are also grown, but only two came within the scope of the camera.

C. T.

AN AUTUMN RAMBLE THROUGH GLASNEVIN

HAVING a few hours to spare in the neighbourhood of Dublin, the writer took advantage of inspecting the famous botanic gardens at Glasnevin and although the season was far advanced, there was, nevertheless, much of interest to occupy his attention for many hours. On entering the gardens it was gratifying to learn that no toll is expected from the visitor, and, moreover, a short guide to the gardens, which includes a large plan, was to be obtained at the gates for the modest sum of one halfpenny. Such a guide is especially helpful to those who have but a short time to spend in the gardens, since it records the main features and is so arranged that the visitor may make a systematic tour. Kew might well follow the example of Glasnevin in this direction, and the advantage of a penny guide has more than once been urged in the pages of THE GARDEN.

Immediately to the right of the entrance there is a good mixed herbaceous border skirting the main walk, and at this time the Michaelmas Daisies were making an exceedingly showy yet artistic display. The Main Walk brings the visitor in touch with many rare floral gems, and these are to be found in the south border attached to the greenhouses. Space would not permit of recording a long list of names, but especially beautiful were *Aralia chinensis variegata*, a lovely form with its ovate leaflets margined with white; *Amicia corymbosa*, a leguminous plant with decorative pinnules; *Escallonia pterocladon*, a most charming species possessing white flowers held in long racemes, and to which additional beauty is given by the prominent green stigmata. Another white-flowering shrub was to be seen in *Veronica macroura*, while *Phygelius capensis* gave a pleasing touch of red. *Azara integrifolia variegata*, *Pentstemon biflorus* and *Eryngium Sanguisorba* were other interesting plants to be found in this quarter; while further along *Adenocarpus foliolosus*, *Myrtus communis tarentina*, *Eremurus spectabilis*, *Lobelia vanillei* and *Senecio perdicoides* played no mean part in creating a fresh display. Very effective was the border of *Crinums*, in perfect health, and represented by such magnificent forms as *C. Moorei*, *C. Powellii*, *C. P. alba* and *C. pratense*.

Although less effective than they must have been earlier in the season, the beds devoted to summer-flowering plants are by no means wanting in brightness, and they certainly do not fail to afford abundant gratification to those who take an interest in this form of gardening. There is not much of it, nor is it desirable that it should be carried out on an extensive scale; but it is all more or less good, and admirably serves the purpose of producing a display of colour when flowers of hardy plants are comparatively scarce. From the bedding plants, attention may well be turned to the herbaceous border. Yellow is the dominant colour, but the pictorial effect is improved by a well-arranged colour scheme, consisting in drifts, and an ingenious system of painting on hidden stakes. *Helianthus* Miss Ellish, *H. multiflorus plenus*, *H. giganteus*, *H. sparsiflorus*, *Helenium autumnale* Riverton Gem, *H. a. striatum* and *H. a. rubrum* provide yellow flowers in abundance; while among Michaelmas

Daisies, *Beauty of Colwall*, *Acris* and *Amellus majus* were employed in a most artistic manner. Dahlias of many colours added to the display, and touches of white and pink came from *Anemone japonica* and *A. j. Lord Ardilaun*. *Aconitum Fischeri* (one of the best of late blue-flowered subjects), *Tagetes signata pumila*, *Solidago serotina* and *S. giganteus* were other plants in the height of perfection.

Contiguous to this part of the grounds is the Rock Garden, on entering which attention was at once directed to the pleasing masses of *Gentiana*

and other economic plants are experimented with. The adjacent Rose Garden provided a very imposing appearance, and here were to be found some very valuable varieties. A few steps along the Laburnum Walk brings the visitor into the Herbaceous Grounds, where the plants are artistically arranged in their Natural Orders. The genus *Liliaceæ* at this time provided the *Colchicums*, which had reached the height of perfection. *Colchicum byzantinum*, a species closely allied to *C. speciosum*, but with smaller and paler-coloured flowers; *C. Bornmülleri*, one of the



THE RARE COLCHICUM BORNMÜLLERI.

asclepiadea. The production of flowers in the rock garden during October is a matter of much consequence, and the following is by no means a complete list of plants which made a truly magnificent display: *Saxifraga Brunoniana*, *Bellis crassifolia*, *Sarcococca humilis*, *Veronica Autumn Glory*, *Lysimachia Henryi*, *Claytonia rosea*, *Leontopodium japonicum*, *Primula Mooreana*, *Myosotis azorica*, *Viola cornuta alba*, *Andromeda polifolia*, *Armeria fasciculata*, *Potentilla Vilmoreana*, *P. Miss Willmott*, *Geum elatum*, *Campanula sibirica*, *C. Hohenacheri*, *C. garganica*, *C. g. W. H. Paine*, *C. haylodgensis*, *C. Portenschlagiana*, *C. Stansfieldii*, *C. patula*, *Erodium corsicum*, *Fuchsia thymifolia*, *F. macrostemma*, *F. m. americana*, *Cyclamen repandum*, *C. neapolitanum*, *Erica vagans*, *E. v. alba*, *Linaria origanifolia*, *Micromeria Piperella*, *Cyananthus lobatus* and *Bryanthus empetrifomis*.

Connected with the Rock Garden by a curved path through the Conifer Collection is a beautiful stretch of water, beyond which lies the River Tolka, skirted by a pleasing walk. Passing hence, the course lay by the Lime and Birch Walks, containing some valuable species. The Walled Garden and Nursery Gardens were next visited, and from this spot steps were directed to the Experimental Garden, where vegetables, herbs

and other economic plants are experimented with. The adjacent Rose Garden provided a very imposing appearance, and here were to be found some very valuable varieties. A few steps along the Laburnum Walk brings the visitor into the Herbaceous Grounds, where the plants are artistically arranged in their Natural Orders. The genus *Liliaceæ* at this time provided the *Colchicums*, which had reached the height of perfection. *Colchicum byzantinum*, a species closely allied to *C. speciosum*, but with smaller and paler-coloured flowers; *C. Bornmülleri*, one of the rarest species, possessing lilac rose flowers, the colour of which changes to deep purple; *C. luteum*, a very desirable plant; *C. Sibthorpii*, a native of Greece and possessing large, cup-shaped flowers; *C. speciosum* and the varietal forms *C. s. rubrum* and *C. s. alba*; *C. umbrosum*, a small-flowered species from the Caucasus; and *C. autumnale* and *C. a. alba* were most of the species to be found in this interesting collection. Close by, the *Kniphofias*, belonging to the same Order, provide a blaze of colour, and although essentially autumn bloomers, many of the newer kinds flower from midsummer onwards. At Glasnevin, *Kniphofia aloides erecta*, possessing large spikes of vermilion scarlet flowers; *K. Burchellii*, flowers bright yellow, tinged with red; and *K. Macowanii*, bright orange red, were among the most attractive forms.

Returning by way of the Long Walk, a very pleasant afternoon was completed; and in closing these remarks it is desirable to say that to mention everything deserving of notice would require more space than can be spared. Not far from Glasnevin stands the famous Phoenix Park, probably the finest public park in Europe; so that the flower-loving public of Dublin are particularly well supplied with horticultural resorts. R.

NOTES FROM MYDDELTON HOUSE GARDEN

By E. A. BOWLES, M.A., F.L.S.

THE October frost robbed the garden of much that might have figured in these notes, but the gale of Sunday week did even more damage to the ever-dwindling array of bright

blossoms, and whirled away the greater part of the leaves that were showing fine colouring.

A phenomenal rainfall and the wind-driven wet leaves have destroyed many a delicate flower that a prolonged spell of the clear sunny days we count as St. Luke's little summer would have brought to full beauty. Therefore it is a delightful contrast of occupation to turn from the clearing and tidying work ready to hand in every border, or to leave off picking sodden leaves out of drenched alpine plants that hate such cold poultices, and slide off the lights from the autumn side of the Crocus frames. The sturdy, upstanding blossoms inside seem more beautiful and welcome than ever, and one wonders that so few gardens are provided with this simple and inexpensive source of joy in the dull months—an unheated frame for winter-flowering bulbous plants.

In the front row, where the shade of the brickwork keeps the soil cool and moist, there is just now a band of the autumnal Snowdrops 'Olgæ and Rachelæ, my reserve stock that I keep inside for fear of disasters to those outside, and I am sorry to say it is a very small one of Rachelæ. By their side, contrasting strongly with their pure white, are my little groups of the various forms of *Crocus byzantinus*, two of which I have chosen for my sketch. This is one of the few Crocuses that thrive best, here at any rate, in a cool and somewhat shaded position, and this obliging habit accounts for its occupancy of the front of the frame, and of a cool nook or two in the rock garden where no other plant flowering so late in autumn would be equally happy. It is a very remarkable plant both in its beauty and the distinct characters in which it differs from every other *Crocus*. In fact, it is at a first glance so much unlike a *Crocus* and so suggestive

of an Iris that it was once proposed to form a separate genus, *Crociris*, in which to place it. The Iris-like appearance is mainly due to the great difference in size between the large and wide

and hang downwards in perfect imitation of the falls of an Iris. As I write I have a gathering of them before me in a vase with one of the first blooms of this season of *Iris unguicularis*, and the two appear wonderfully alike at a little distance, until one notices that the yellow bee-guide stripe of the Iris is missing in the *Crocus*.

I have discovered a fact that is new to me through bringing in these blossoms to draw;

a very unpleasant fact, too. This lovely *Crocus* possesses a very disagreeable odour, much like that of the Copper Austrian Rose, and which has caused that beauty to bear the awful name of *Rosa foetida*. It is an odour that always recalls to my mind one of the unpleasant mishaps, that often occur to an ardent entomologist when beating for larvæ. He holds a large linen tray, stretched on a wooden frame, a sort of hybrid between a carriage umbrella and the wing of an aeroplane, under the Oak boughs, at which he bangs with a stick. When luck favours him, fat specimens of rare larvæ fall "plop" into the tray; when luck fails, spiders and other long-legged horrors fall on his head; but his worst luck of all is when a tree-bug falls between his neck and collar and scents both with its oily, rank odour.

Just such an unpleasant scent came in whiffs to my nose as I drew these Crocuses. The darker form and taller bloom possesses it most strongly, but the pale lilac one in front has more than is necessary. I know of only one other *Crocus* with an evil scent—*C. graveolens*, a yellow species flowering in spring, which scents the air for yards around on a still, sunny morning, but the odour is like that of blackbeetles or stormy petrels' eggs, not of tree-bugs. Yet another peculiarity of *C. byzantinus* is the colour of the stigmata, which is of much the same shade of purple or lilac as the outer segments. The spring-flowering *C. carpetanus* has a very pale tint of lilac on its small, nearly white stigmata; but the large and finely branched bunch of threads of *byzantinus* is much more conspicuous, and one of the great

charms of the flower. There is a white form in cultivation, in which the stigmata are pale yellow, showing it to be a true albino. These two forms I have drawn are the handsomest I know of, and were both raised by the late Mr. Allen of



TWO FORMS OF
CROCUS
BYZANTINUS.

(From a drawing
by E. A. Bowles)

outer segments and the curiously pointed inner ones, which are frequently less than half as long. When a blossom is fully opened in sunlight or a warm room, the large outer segments either stand out at right angles with the tube or reflex

Shepton Mallet, who enriched our gardens with so many good Snowdrops, Wood Anemones and Scillas. The dark form he called President and the paler one Rosamond.

The neighbourhood of Hermannstadt is one of the native homes of this Crocus, and it is sad to think a countryside that can produce such a lovely flower should be the scene of such fierce fighting this autumn. It is often called *C. iridiflorus*, but, unfortunately, the less suitable name of *byzantinus* is the older and so must stand, although it is so misleading, seeing that the plant does not occur in Asia Minor, but only in a small district bordering on the Eastern Carpathians.

C. longiflorus is very beautiful now in many forms, both in the frame and in some sheltered bays of the rock garden. Some of the seedlings I have raised of late years vary greatly in shade, either lighter or darker than their parents, and others from the striped variety known as *melitensis* are particularly good when closed. All of them are deliciously scented, and the name *odorus* is a synonym for this species.

As the sun sets, a delightful odour like mingled Violets and Apples pervades part of the rock garden. It is given off by the ripe fruits of various forms of *Cydonia Maulei*, and I like to gather half a dozen of them, or of *C. japonica*, to place in the rooms. They are never unpleasantly strong, as an Apple or ordinary Quince would be in a room, but give out whiffs now and then of a delicate and refreshing fragrance.

I was surprised to find quite a fair sprinkling of berries on *Lonicera pileata*, for I had not noticed them while still green, and those of the closely allied *L. nitida* disappeared several weeks ago. Those of both plants are much alike, of the

colour of an amethyst, and almost as transparent as the stone itself. I think *pileata*'s are the richer purple, but smaller in size. If both can be induced to berry freely, they will be very beautiful objects in the autumn, but up to the present I have had to search rather closely for the fruit. The best autumn tints of the moment are to be found on a large sprawling mass of *Rhus Cotinus*, almost as gay as a macaw, as it glows with orange, yellow, scarlet, green, and a curious toning of purple and mauve on certain shoots, a colour I never see on any other autumn-tinted leaf.

Eucryphia pinnatifolia is also finely coloured, but more uniform in various shades of tawny orange and rich brown. *Liriope graminifolia*, also known, but wrongly, as *Ophiopogon Jaburan*, is still making a good show with its spikes of purple blossoms, so much like those of a *Muscari*, among the narrow green leaves; and *Parochetus communis*, in spite of the frosts, opens flowers, blue as an Italian sky, on every day that brings a glimpse of sunlight.

I was greatly struck with the beauty of a tall bush of *Artemisia tridentata* as a gleam of afternoon sunlight lit it up to-day. The silvery-leaved, stiff shoots gleamed very brightly, and the pendent bunches of lightly branched flowering shoots resembled some fine grey lichen, what I should imagine the Spanish Moss of American woods must look like. The whole plant has a wonderfully strong and pungent odour when bruised, almost as powerful as that of Elliman's Embrocation and very similar in its strong acidity. On reading these notes through I find I have used my nose almost as much as my eyes in preparing them. I always like to know what a plant smells like, both in flower and leaf, and I hope my readers will find some interest in my records.

MICHAELMAS DAISIES

By EDWIN BECKETT, V.M.H.

I OFFER no apology for once again referring to this beautiful class of plants, as, when properly treated and the most desirable varieties cultivated, I know of no hardy plants which give more pleasure during the closing days of summer and the early days of autumn. My first love for them, which is now many years since, has never waned in the slightest, but, on the other hand, increased year by year.

I was first impressed by them by seeing a collection which was formed by the late Mr. J. Gray in his garden, now known as The Firs, Claygate, and which was well grown by the late Mr. J. Child, his gardener. He had practically, then, all the best species and varieties, and a narrow border was devoted to them. I came to the conclusion that there were great possibilities for their future, and I was determined to do my best to effect an improvement by crossing and hybridising the many varieties and species. I think I can claim to have done something in this direction, with many others who have also had this object in view.

To see these at their best, a border or piece of ground should be devoted to them, and having once decided on the site, they may be successfully grown on the same spot for an indefinite number of years, provided they are taken up, parted and replanted annually, early spring being the best time for this operation. The ground should be deeply tilled and a liberal supply of half-decayed manure incorporated at the time. Any aspect will suit them, and, so far as I know, they will



A BORDER OF MICHAELMAS DAISIES IN THE GARDENS OF ALDENHAM HOUSE

thrive well in any locality and in any soil. The place we selected for them here at Aldenham is facing east, and we have grown them in the same position for nearly thirty years.

A certain amount of care should be exercised in arranging the heights and colours of the various species and varieties, and by so doing one is able to produce a different effect each season.

The plants should be staked out, and the growths not required thinned out in the early season, especially with the more vigorous-growing varieties, and, except attending to the necessary tying and hoeing, very little further attention is required except during spells of very dry weather, when the plants should be copiously watered and the growths damped over during the evening after very hot days.

Some of the more delicate varieties, such as the cordifolius section, should be taken up, potted and placed in a cold frame during the winter months, and planted out in the spring. Overcrowding should be avoided. We allow a distance of 4 feet from plant to plant and 3 feet 6 inches between the rows. By so doing, the varieties are given full opportunity of displaying their habits, many of which are most graceful and beautiful.

Hybridising and raising new seedlings is a very interesting study, but care should always be taken to eradicate all which show no signs of improvement on existing varieties. I am enclosing a photograph of a portion of the border here, taken at the end of October which will give some idea of the display.

For the guidance of intending cultivators I append a list of the most desirable varieties grown here, with their approximate heights and colours. The Amellus section, of which there are many beautiful varieties, should be grown apart from the main collection, as should also acris, which is a very beautiful early flowering variety.

MICHAELMAS DAISIES GROWN AT ALDENHAM.

Variety.	Colour.	Height. Ft. In.
*Tradescanti ..	White ..	4 6
King Edward VII. ..	Bright mauve ..	3 6
Comeliness ..	Azure blue ..	4 0
Grey Dawn ..	Grey blue ..	3 0
Decorator ..	Small white ..	3 6
Lovely ..	Pale mauve ..	2 6
Esther ..	Pale pink ..	2 6
Vimineus Elfin ..	Pale lavender ..	4 0
Aldeboran ..	Bright blue ..	3 6
Cinderella ..	Pale blue ..	4 0
Desire ..	White ..	3 6
Little Boy Blue ..	Blue ..	4 0
Little Bo-Peep ..	..	4 0
Starshower ..	Small white ..	3 6
Delight ..	White, changing to pink ..	3 6
Paragon ..	Deep lavender ..	4 6
Bianca ..	White ..	4 0
White Diana ..	Lilac ..	4 0
Goldfinch ..	Creamy white ..	4 0
Twilight ..	Bluish white ..	3 6
Lady Lloyd ..	Very deep pink ..	4 0
†Daydream ..	Pale lavender ..	4 0
*Sirius ..	Bright pink ..	5 0
Blue Beard ..	Blue ..	6 0
Grace ..	Greenish white ..	4 6
Turbinellus albus ..	Grey white ..	5 0
§Glory of Colwall ..	Lavender ..	5 0
Climax ..	Blue ..	6 0
Hon. Edith Gibbs ..	Lavender ..	5 6
Avalanche ..	White ..	5 6
Louvain ..	Pink ..	6 0
Mrs. F. Rayner ..	Crimson ..	6 0
Amethyst ..	Blue ..	5 6
Lil Fardell ..	Crimson ..	6 0
Purple Prince ..	Purple ..	6 0
William Bowman ..	..	6 0
Queen of the Belgians ..	Dark blue ..	6 6
Cordifolius nanus ..	Blue ..	4 0
Brightest and Best ..	Magenta ..	5 6
Edwin Beckett ..	Blue ..	4 6
†King of the Belgians ..	Pale blue ..	6 0
†Peggy Ballard ..	Rosy lilac ..	3 0

*Very late flowering variety. †Early flowering variety. Semi-double. § Double. || New semi-double. ¶ New.

THE CULTIVATION OF BELLADONNA
THE MOST PROFITABLE HERB TO GROW

By J. C. BRISTOW-NOBLE.

PEOPLE everywhere are asking for information on the culture of Belladonna (Atropa Belladonna), which is the most profitable of medicinal herbs, and which, before the war, the Germans were exporting into this country on so large a scale.

The herb is the easiest of all herbs to grow, flourishing as it does on almost any soil, with the exception of clay, and calling for little attention. Indeed, Mr. Beetham Wilson of Dorking, who at present is our largest grower of the herb, has been producing first-rate crops for the past few years on waste ground; that is to say, on ground that within his memory had always been neglected and dense with weeds, and to which he himself has done little, apart from keeping the weeds within reasonable limits.

Mr. Wilson's system is to raise plants from seeds in pots beneath glass, and plant them out in August. "Of course," he says, "the ground is then warm, and the plants quickly take root and grow rapidly. . . . Plant out in the spring or autumn," he continues, "and most of the plants die; there is not sufficient warmth in the soil to keep them alive. The labour required is small, that is, in my experience. Keep the ground fairly clean, and quite clean within a circle of, say, 6 inches round each plant, and no further attention is necessary."

Another grower recommends that the ground be dug or ploughed and lightly dressed with farmyard manure, or a mixture of nitrate of soda, basic slag and kainit. It is probable, however, that the latter's soil is not so rich as that of Mr. Wilson. But be this as it may, the plan to adopt is not to put any more work into your soil than experience tells you is absolutely necessary. Such is one of the secrets of profitable farming. You see, it is possible to farm too well as well as too slovenly. You must strike out for the happy medium. This grower also recommends sowing the seeds, not in pots beneath glass, but in the open ground, in drills 3 feet apart, using between 2lb. and 3lb. of seed to the acre and sowing in late spring and early autumn. But I prefer Mr. Wilson's system. It is the safer, the more thorough, the more practical. When he comes to plant out, he leaves 3 feet between the rows and 2½ feet between the plants in the rows.

Seedlings or young plants—call them which you will—are at present difficult to obtain and cost as much as 6s. a dozen, for, the truth to tell, those which are on sale have been gleaned from the hedges, woods and waste pieces of land at the expense of much time and infinite pains. But seeds can now be obtained from most of the seed merchants. Belladonna fruits or berries ripen from August to October, according to the forwardness or lateness of the plant. When the berries are fully ripe, the seed is carefully extracted, washed and dried.

Plants that were put in during August should yield one small cutting of leaves and stalks next summer. The rule, however, is not to take a cutting before the herb has reached a height of 18 inches. From their second year until four years old the plants give a cutting in July and another in September. In their fourth year they are dug up and the roots, as well as the foliage, are used.

The correct time to cut is, as with Lavender, when the flower or blossom is at its best, and the



FLOWERS AND LEAVES OF THE VALUABLE
DRUG HERB BELLADONNA.

herb should be cut with a Lavender sickle; that is to say, with a sickle with a toothed edge. In other words, it should be sawn off and not cut at all. The sawing leaves the stalks jagged and crushed, consequently the herb is not so apt to lose value as a drug herb, owing to the draining away of some of its juice, which it often does when cut off clean. Again, an absolutely dry day should be chosen for the cutting, and care must be taken not to leave the herbage lying in the sun as it is cut, or heaped together in large quantities. The latter, of course, produces heating, and heated Belladonna is valueless. It is also advisable to dry as quickly as possible. A loft makes a capital drying shed; in fact, almost any large building. A platform of wire-netting should be erected and the Belladonna spread out on this quite thinly. If there is a draught passing through the building, the herb will be found to dry in a very short time.

Occasionally manufacturing chemists require small quantities of the fresh, green herb. In this case it must be sent away by passenger train immediately it is cut, packed loosely in light crates. An acre of Belladonna will yield from five to six tons of leaves and stalks twice yearly. Then, as I have said, in the fourth year there is the root as well as the foliage. Above four years old the herb is of little value save for seed.

Of course, a certain number of young plants should be planted every summer. Say, for instance, you are an agricultural farmer and can devote four acres of odd pieces of land to the herb, your plan should be to plant an acre each summer till the whole four are planted, and then begin again. This is the only course to adopt to establish a plantation yielding an annual harvest. Perhaps occasionally the land should be given an entire rest of several months, but this is not the opinion of the majority. These say the ground has rest enough between the clearing away of one crop and the time that the new planting begins to make serious growth, and I daresay they are right.

Before the war the market price of Belladonna foliage and stalks was £8 a ton, which was found to be quite satisfactory, giving as it did a profit of about 50 per cent. Again, the average price for roots was 45s. per cwt. One German exporter was sending us 100,000lb. of the latter year after year, and another 30,000lb., and these were but two among many Belladonna exporters.

Just now the herb is so scarce that there is a ready sale at an enormous price for even the cottager's armful. But it cannot be advised that it be grown except on a fairly large scale. The reason for this is because in a few years' time the small growers will be given the cold shoulder. Small quantities, the wholesale buyers tell us, cannot be dealt with economically; and what they mean by this is that the time and trouble involved in buying a hundredweight is the same as in buying a ton. "Grow it by the half-acre or by the acre or field" is the advice these people are giving us, "and then," they add, "we shall be very pleased to hear of you and do business with you. But, please, do not trouble us about a few hundredweights unless they be hundredweights of roots."

The herb is required for tincture, liniment, plaister, the extraction of atropine, and much besides. In short, it is one of the most valuable of drug herbs, and should form one of the standard crops on every farm, large or small.

THE NATIONAL HERB-GROWING ASSOCIATION

THIS enterprise, made known to the public only in January last, has grown in a manner that may claim to be unprecedented. The membership is now close on 2,000, not including members of affiliated "local centres," which represent some hundreds more. Members are taught how to grow or collect, and how to prepare for sale, pack and so forth.

A drying shed opened at Byfleet early in the spring was, after only a very few weeks of use, burnt to the ground owing to a faulty boiler. With the shed perished £60 worth of the first prepared material. This made it necessary to set members on—for the remainder of this season—drying for themselves. One hundred

tons of drug plants (prepared or fresh, according to order) have been marketed.

Starting with the share of an office and part time of a secretary, there are now five offices and a staff of ten or twelve paid workers, and much voluntary help is constantly given. Neither the staff nor the space at command is anything like sufficient for the constantly increasing work. Lectures and demonstrations have been given in thirty places; many more are being arranged. Printing of the requisite literature can scarcely be done fast enough to keep pace with the demand. Sixty thousand pamphlets, &c., had been sent out by the middle of October.

It is now necessary to divide the society into two sections—a co-operative division to carry on its trading, and another to advise, organise, lecture, publish and distribute literature, and so forth. Information as to the scheme adopted can be had from the Organising Secretary, 20, 21 (6), Queen Anne's Chambers, Westminster.

It must be understood that this work of restoring in Great Britain and Ireland the provision of our own drug herbs is, and must be, carried on as a business, and not as a hobby, as someone wrote

be achieved; now, thanks are due to any and all who can devote small spaces for the purpose. If it had not been for the goodwill and industry of small growers, the hundred tons could never have been supplied as a result of ten months' campaign under present circumstances.

As winter brings a lull in the work of directing growers and collectors, attention will be chiefly directed to lecturing, forming new centres, and preparing to erect drying sheds, of which in time it is hoped that a sufficient number will be dotted here and there over the country, to provide accessible drying places for all centres. A fund is open for these, to which donations are solicited. More members are sought for the "association" or educational division, and shareholders for the co-operative or trading section.

A FOUNDER-MEMBER.

NOTES ON VEGETABLES

Broad Beans.—Now is a good time to sow seed of Longpod and Green Windsor varieties for an early batch. Seed sown at this season will



BELLADONNA GROWN ON WASTE LAND AT DORKING.

lately; not as a matter of sentiment. It was realised by the founders at the outset that, if done at all, it must become (as it has) a national movement with commercial aims. From a small beginning it sprang into growth more rapidly than ever they had anticipated. It has been a hard struggle to cope with the rush of (a) members wanting instruction and clearing up of their mistakes, and (b) the demands of druggists and other purchasers. There was no precedent to go on, no patronage given, no grants in aid. What has been done arises from sheer hard work and determination not to be beaten.

The founders knew from the first that presently growers must be found to give acres of land to the cultivation of the necessary herbs. When the war is over and labour available, this can

produce a crop earlier than that sown in the open in February, or even than that so sown in heat and planted out. Choose a position sheltered from east winds, which do more harm than frost. A warm south border is naturally the best site. The soil should be deeply dug to ensure good drainage, and be fairly well manured. Sow in drills 6 inches wide, placing the seed anglewise. The rows should be 2 feet apart. Where the soil is heavy, place a layer of old potting soil or leaf-mould under the seed to ensure quicker germination and a better drainage. When the plants show through the soil, if the position is exposed to east winds, afford slight protection by the aid of evergreen boughs thrust into the soil a few inches from the plants, not too close, for fear of drawing up the plants.

Beetroots and Carrots should be lifted and stored in a heap in sand or ashes in a frost-proof shed or cellar, carefully taking them up without injury to the tap-root, especially in the case of Beetroots, or they will bleed, which means a loss of colour in the flesh. The daily Press, with a view to economy in labour, advise leaving the roots in the ground until they are required for use. Most people know this is wrong; for what is to happen when a fresh set of small roots are made? The roots themselves are spoilt by this unnatural growth; besides, the Carrots will split and the slugs will quickly devour the lot. Is it not a fact that pieces of Carrot thrust into the soil are one of the best traps for slugs? Need any more be said?

Celery.—No time should be lost in giving the final earthing to the midseason batch of plants and additional soilings to the latest batch. There are two main points to observe in the successful earthing of Celery; first, have the soil fine, free from lumps and large stones—in this way it can be placed so much closer around the plants; secondly, the leaves should be kept close together and quite upright to prevent fine soil trickling into the hearts of the plants, which causes crooked, unsightly sticks when dug.

Cardoons.—Complete the final blanching with haybands and soil, seeing that the supports are ample.

Endive.—All plants growing outdoors should now be lifted and placed in cold frames, orchard or cool Peach houses, where they can be blanched by the aid of mats on the frames, inverted pots in the houses, slates laid on the crowns of the plants, or, what is equally good, tie up the outer leaves over the heart of the plant. For a late supply, prick out into frames plants sown some time ago; these will be found useful in spring.

Autumn Onions.—As a rule the seed has germinated well and the plants are looking strong. Keep them free from weeds by weeding and hoeing. The stirring of the soil in dry weather, even where there are no weeds, will accelerate growth, allowing the plants to get a better hold of the soil for the winter, when they will not be so liable to be uprooted by frost.

Globe Artichokes.—Cut down the stems, remove decaying and the lower leaves, and place a thick layer of strawy manure to protect the roots from severe frost. Do not place the manure too high around the heart of the plant for fear of undue hastening of growth in the centre leaves. This can be done in the event of severe frost. If new plantations are required, now is a good time to take off suckers from the base of the plants, potting them, and placing in a frame free from frost, to be put out in the spring in deeply trenched, heavily manured soil in an open site in the garden. Plants raised from seed are not always satisfactory; the heads have too many prickles and pointed segments. Large Green Globe is the best variety for general use. The purple variety is sometimes approved.

Asparagus.—The stems will now be ripe and ready for cutting down to the ground. Clear the beds of weeds, gently pricking over the surface soil, on which place a 2-inch layer of half-decayed stable manure. It is a common practice to cover the beds with soil from the alleys, but, except in heavy, wet soil, this is not necessary; the manure on the surface is ample protection. Asparagus is quite hardy when not waterlogged at the roots. The manure as it decays acts as a stimulant to the roots. Where the soil is heavy and retentive

of moisture, the taking out of the soil in the alleys a foot deep cannot be otherwise than beneficial in aiding drainage during the winter. The soil can be returned to the alley in the spring, forming a good site for early Cauliflower, Cabbage or Lettuce.

Tomatoes for spring fruiting should be kept near the glass in a warm atmosphere, with a free admission of air in fine weather to ensure a stocky growth. An occasional fumigation to keep away such insect pests as white fly will be beneficial. Plants in fruit will appreciate weak tepid liquid manurial stimulants.

French Beans.—Make a sowing of four Beans in a 4-inch pot in a temperature of not less than 65°, to be afterwards transferred to 8-inch pots for fruiting. Some sow at once in the pots in which they are to fruit, but these take up too much valuable space, and the plants in smaller pots succeed better. Some dwarf-growing, free-fruited variety is preferred to one more robust in character, even if the latter has longer pods, on the score of economy in space. When the plants are freely in growth, a dry, arid atmosphere is conducive to attacks of red spider. On the other hand, too humid a condition favours a flaccid leaf growth.

Leeks.—Those early sown and well cultivated in boxes to induce an extra length of blanched stem have done remarkably well this season. Leeks are gradually gaining popularity as their merits become more widely known. So many persons have never tasted well blanched and cooked Leeks, or I am certain many thousands more would be grown. There is no comparison whatever between a Leek quickly grown with a blanched stem 16 inches long in October, and one half that length grown by sinking a hole in the open ground a foot deep, dropping in the plant, and allowing the hole to be gradually filled and the plant blanched as growth proceeds, which is the ordinary method of Leek culture. I would advise a trial of the two methods, and have no fear of the result, even if more time and trouble is entailed.

Swanmore.

E. MOLYNEUX.

POTATO GREAT SCOT.

THERE is no lack of variety in Potatoes, but after growing the above for two seasons I find it so superior to many others that I am induced to send a note in its favour. Though a second-early or midseason variety, this year it has given splendid results and the crop has matured earlier than usual. Of course, most of my readers would require to know something as regards the cooking or eating qualities of any new variety, and in this respect I think Great Scot is one of the very best. It is of excellent table quality, and, what makes it more valuable, is a splendid keeper, with round tubers, shallow eyes, and admirably adapted for strong soils, as it is a robust grower, having a strong haulm. With me it is quite free from disease. It is a very heavy cropper, with no waste, as the crop is notable for its absence of small or useless tubers. A few years ago this variety was one of the few which received an award of merit from the Royal Horticultural Society for the quantity of its crop and its good quality, as it was cooked to test the last named—an important point that should not be overlooked in any trial of Potatoes. For gardens of limited size I think Great Scot will become even a greater favourite, owing to its maturing so early and its long-keeping properties, a great gain to those who can only grow first or second earlies. W.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Flower Garden.

Christmas Roses.—These winter-flowering plants are favourites in many gardens. Though perfectly hardy, some protection for the blooms is desirable. Large groups may be covered with a movable cold frame or temporary lights; for single clumps a handlight is convenient. When not intended to be protected with glass, the plants are usually grown in a sheltered position. At present a mulching of strawy manure will be beneficial and prevent the soil being splashed on to the flowers. There are three distinct forms of the Christmas Rose: *Helleborus niger altifolius* or *maximus*, which is already opening the first flowers; *H. niger*, the type, which flowers from Christmas onwards; and *H. niger angustifolius*, the finest pure white variety, at its best in February and March.

Lily of the Valley.—Beds of this are usually left undisturbed for some years, but, as is only to be expected after a few years' growth it improves the health of the plants to lift, divide and replant the clumps. This provides a favourable opportunity to select some of the best crowns or clumps to pot up for the greenhouse. This year, when bulbs are relatively scarce, home-grown Lily of the Valley roots are very useful. In making beds of Lily of the Valley, select positions sheltered from the midday sun. Deeply till the ground, working in plenty of decayed leaf-mould and manure from a spent hotbed or old Mushroom-bed.

The Kitchen Garden.

Parsley.—To meet the winter demand, a temporary frame should be placed over a portion of the bed. Another method is to grow Parsley in boxes, placing these in a cold pit or frame, and later, if the supply runs short, introduce a box or two into a little heat.

Seakale.—The roots grown for forcing in pots and boxes should now be carefully lifted. Trim off all the side roots, leaving the main root some 7 inches to 9 inches in length. These should then be heeled in light soil in a sheltered position, from which they can be readily drawn as required for forcing. When required early, a few may be started at once. Place several roots in large pots, or a number in boxes and tubs, suitable for standing under the greenhouse stage, and keep quite dark. Other methods are in a cellar, under the bench in a heated potting-shed; in fact, any place where it is quite dark and there is sufficient heat to induce growth. Sufficient of the trimmings may be tied up in bundles and heeled in soil ready for planting in spring. Cut the top of each root level and the bottom slanting to distinguish the ends when planting.

Plants Under Glass.

Nerines.—These beautiful late autumn and early winter flowering bulbous plants are worthy of much more attention in our greenhouses. Easy to cultivate, the Nerine seeds freely, hybridises readily, and is also increased by offsets. The reason for non-success is sometimes traced to the fact that our darkest days of winter is the time when the plants should be growing freely. Give them the lightest and best position in the greenhouse as the flowers fade—a shelf or stage, for instance, near the roof glass facing south. When the pots are fairly well filled with bulbs, liquid manure or a sprinkling of fertiliser on the soil previous to watering is beneficial.

Pelargoniums.—The Show, Regal and Fancy Pelargoniums require attention about this date. The plants cut back have made sufficient young growth to permit of their being shaken free of most of the old soil, repotting into pots a size or two smaller. The young plants rooted from cuttings in summer may require moving into larger pots, and previous to or following this work remove the tips of the shoots to encourage bushy growth. Keep the plants near the roof glass on a bench facing south. Fumigate about once a fortnight. Few, if any, plants are more liable to the attacks of green fly.

The Hardy Fruit Garden.

Plums.—Assuming that the work of pinching and disbudding the shoots was efficiently done

BOOKS

My Garden in Autumn and Winter.*—This is the title of the third and final volume of the series—"My Garden in Spring" and "My Garden in Summer" are the companion volumes—in which Mr. Bowles has set out on the pleasurable task of reviewing his own garden for a whole year, and of the three I think the present one perhaps the most informative; certainly not the least interesting. Its chief value lies in the fact that the author takes his readers with him month by month through his garden. And if, as he has a perfect right to do, the author tells the story in his own way and indulges—a little frequently, perhaps—in illustrative humour and metaphor, there will be found, when all this "chaff has been separated from the wheat," a store of grain the like of which for quality and abundance has never been threshed out before. For the author is both a keen gardener and an acute observer, and, knowing his plants through and through as the result of an intimate acquaintanceship—not infrequently of long duration—he is able to refer to their charms, interests and peculiarities in quite a unique way. Thankful, too, for the immediate luxuries a richly stored garden can give, he also, watching the formation of catkins here or buds there, looks into the future with hope and expectation, for he says (page 5), "What hopes of future beauty one can read in the fat, nut-shaped bud of a *Pinguicula grandiflora*, the mealy winter rosette of *Primula cashmeriana*, or the hard central crown of tightly rolled fronds of some good Fern." To such a gardener there is beauty and promise in the winter's twig or bud as in the summer flower, for "one of the greatest virtues of gardening," quoting again from page 5, "is the promise of flower and fruit that can always be read in the open book of the garden by those with an eye to see and a mind to understand."

Of the fifteen chapters of the book, varied as they are on such subjects as "The Passing of Summer," "Autumn Crocuses," "Autumn Tints," "Evergreens," "Berries," "In the Grip of Winter" and the like, that on "Autumn Crocuses" is to my mind the most valuable, because it puts into nutshell form all that the gardener need at first know of this fascinating subject. Some twenty-seven pages are devoted to it, beginning with the richest orange *Crocus Scharojanii*, which appears usually in early September, and finishing with that loveliest of all whites, *C. marathonsius*, which comes to us throughout October. Nor is it so many pages glowing with ecstasy as to their many charms. Mr. Bowles' information is deeper and wider than this, for he tells of the difficult and easy growers, and gives his own gardening experiences of them in a way that cannot fail to tempt others to become cultivators of this section of a family which in late autumn days sparkle with life when so much of a garden's beauty has already waned. In the opening chapter of the volume, appropriately entitled "The Passing of Summer," mention is made (page 3), in speaking of the replanting of *Crocus* corms which have been lifted and those which start early into growth, of the "puzzle to get it so placed in the earth that the tip of the shoot may point upwards and the base of the corm lie so that the roots may descend." It may be

* "My Garden in Autumn and Winter," by E. A. Bowles. Jack; London and Edinburgh

a "puzzle," as Mr. Bowles says but there is no need to waste even a second in thought or otherwise, for that particular corm, if simply laid on its side at the planting level, will take care of itself, the growth rising and the roots descending in proper order. I once proved this to demonstration by sending the late Dr. Masters a Daffodil bulb buried topsy-turvy, showing the sheathing crook of growth turning upwards and the roots closely clinging to the bulb's side penetrating the outer coats and through these descending into the earth.

Mr. Bowles (also at page 3) refers to as "remarkable" the fact of *Crocuses* and *Colchicums* starting to grow and sometimes succeeding in flowering when "kept comparatively dry." I wonder if he has ever noted the progress of the embryo flower-bud of the Daffodil while in the dry or dormant state. If not, let him next year experiment with a dozen, cutting one open each week from mid-July till the supply is exhausted. He will find the progress "remarkable," as he says of the others.

As every link is essential to the complete chain, so are these three volumes essential one to the other and to all who would garden on Mr. Bowles' plan, which, after all, is gardening all the year round.

E. H. JENKINS.

ANSWERS
TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR OF THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

CHATHAM ISLAND FORGET-ME-NOT (A. J. B.).—We should have preferred a more sheltered spot than a "north border" for this plant, which, even in your favoured county, is almost sure to suffer from either winter or spring frosts. Hence we advise some protection, such as an upright screen of strong scrim set out with Bamboo sticks at a foot from the plant and lined inside with dry, newly cut Bracken, say, of 6 inches thick or more, depending on the size of the plants. Leave the top open, unless the weather sets in very severe. We do not know the treatise you refer to.

TREES AND SHRUBS.

MUTISIA CLEMATIS ON AN EAST WALL (G. C.).—*Mutisia Clematis* is not herbaceous in character; it will probably flower well as it becomes older. Try cutting back the ends of the shoots next spring and leaving the older wood.

TO KILL STUMPS OF LIME TREES (A. M. C., Essex).—Lime tree stumps can be killed by boring holes into the stumps and main roots and filling the holes with vitriol. Pentstemon is pronounced Pent-stemon, and the pronunciation of the other plant is Schiz-os-ty-lis coc-cin-ea.

TRANSPLANTING SHRUBS (Miss A. M.).—*Buddleia globosa* and *B. variabilis* varieties, the orange and lilac flowered *Buddleias* respectively, may be planted at once in permanent places. Use rich loamy soil, and prune the first named lightly and the last named severely in spring. The varieties of *B. variabilis* may be cut down almost to the ground line. *Pyrus japonica* should be pruned as soon as the flowers fade; it may be transplanted at once. Two Roses likely to suit your purpose would be *Gloire de Dijon* and *Souvenir de la Malmaison*. The last named is a good light-coloured variety and would probably give better results than *Climbing Captain* Christy. It is not a Rambler Rose.

in summer, not much pruning will be necessary now. Here and there it may be possible to cut out an old branch and replace with a young shoot. Tar over all the cuts made in the old wood, to prevent gumming. The leading shoots of vigorous young trees require shortening.

Morello Cherries.—As these produce the fruits on the young wood, this should be retained as far as possible. The usual practice is to cut out a few pieces of the older wood each year, so that there is always an abundance of young shoots all over the trees. This does not mean, however, that the growths should be crowded, for it is obviously preferable to have a fair number of shoots and a good crop of large fruits than crowded growths producing quantities of small fruits. Reduce the leading young shoots half to one-third of their length to induce branching.

Kew.

A. OSBORN.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Mushrooms.—Continue to prepare for fresh beds by collecting the manure and turning it frequently so as to allow the escape of excessive heat. A properly protected and airy shed is necessary at this season for preparing the manure. Spawn the earlier-made beds as soon as the temperature has risen to the maximum and fallen again to between 75° and 80°. Good fresh loam should be used for covering the beds, making it quite firm and smooth with the back of the spade. Should the surface incline to dry quickly, sprinkle some clean Wheat straw over it. Beds that are showing signs of exhaustion may be assisted to crop a little longer by giving a good soaking of tepid water in which is placed a pinch of sulphate of ammonia. Woodlice are the chief enemies to successful Mushroom culture. These can be kept in check by pouring hot water and salt around the walls and slate benches.

The Flower Garden.

Protecting Plants.—See that all necessary protection is given to plants of doubtful hardiness in the flower garden. *Tritomas* suffer from wet and cold, particularly from snow settling and melting on the crowns. These should have the foliage twisted around the crowns as a protection, and afterwards thatched with some material so that the snow will be directed off the plants. We find a few branches of Broom of great service for this purpose. The twigs, being sharpened at a suitable length, are placed in the ground around each plant, and the tops drawn together and fastened with a piece of twine. No moisture will penetrate this material, and sufficient air is admitted underneath. Other plants we take the precaution to cover annually are Sweet Bays, *Arbutus*, and *Fabiana* growing on the walls. A few Spruce branches fastened on the front of these will give sufficient protection in all ordinary winters.

Tropæolum speciosum.—This lovely climbing plant is said to flower better in Scotland than anywhere else, yet in many places its cultivation has had to be abandoned owing to repeated failures to get the plant established. Mistakes as to the proper season for lifting and replanting are frequently asserted as the cause of failure, but more often the mistake of too shallow planting of the tubers or of attempting to grow it alone instead of in company with other plants is made. If the roots are planted late in spring about a foot deep close to a wall and among the roots of other plants, such as *Roses*, *Clematis*, or even *Ivy*, they will be found to thrive better than when planted alone, and when once established will persist in growing and spreading to the most unlikely places. In a garden I visit frequently, a small plantation, which was originally intended for the flower garden wall, has found its way to an adjoining shrubbery, mostly planted with *Hollies*, where it has established itself in masses, and in autumn practically covers large specimen *Hollies* with its brilliant crimson flowers, besides forming an almost impenetrable thicket of undergrowth. The ripening seeds are also very ornamental, especially when abundant after a hot autumn. Young plants may also be raised from seeds, but this method of establishing the plant is slow, as the seeds require about a year in which to germinate.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

PROTECTING TREES FROM HORSES AND CATTLE (*Lady Robinson*).—Tar smeared on the trunks of trees will usually prevent horses and cattle from injuring the bark. The only other method of preventing injury is to place guards round the trees, or to wind wire-netting round the trunks.

PRUNING WHITE JASMINE (*S. L. G.*).—The White Jasmine should be thinned out well in the winter, but a considerable number of the younger shoots should be left unpruned. Although it often flowers very freely, it sometimes fails to bloom satisfactorily from no apparent cause. A sunny position is desirable, and well-drained loamy soil is the most suitable for this plant.

PRUNING NEWLY PLANTED SHRUBS (*H. M. T.*).—In the case of deciduous shrubs, pruning when transplanting takes place in December is unnecessary; but in the case of evergreen shrubs it is advisable to reduce the branch system a little in order to counteract the effect of injury done to the roots. If the shrubs are moved carefully, they ought to re-establish themselves quite well. The Michaelmas Daisies sent for identification are apparently seedlings and could not be identified. There are now large numbers of named seedlings, which are very difficult to distinguish from small scraps such as those sent.

ROSE GARDEN.

PEGGING DOWN ROSES OF THE HUGH DICKSON TYPE (*A. S.*).—The long ripened growths of the previous summer should be pegged down in April. It is best to cut away the flowering growths annually and in good time, so that new growths are encouraged for the next season. Frequently such new growths will appear early in the summer, in which case the flowering shoots may be retained till late autumn, as they may probably yield an autumnal crop.

THE GREENHOUSE.

STAPELIAS FOR NAME (*H. P. B.*).—The nomenclature of Stapelias is confusing. No. 1 is *S. normalis*, which, according to "Nicholson's Dictionary," is synonymous with *S. bufoia*. The flower is small, but it is late for this species to flower, the normal season being July and August. No. 2 is *S. variegata*. Your method of culture—a shelf in the greenhouse where the plants get the full south sunlight—is the treatment generally followed with success. Stapelias are not free-flowering subjects. As a potting compost use two-thirds sandy loam and one-third brick and mortar rubble. We have not heard before, or found by experience, that most of the flowers develop on the side least exposed to the full sun.

CHRYSANTHEMUMS UNSATISFACTORY (*F. T. C.*).—You say nothing as to the treatment your plants have received, hence we are handicapped in answering your question. Two important points are, however, evident from the flower sent, the first being that the plants have been over-fed, and consequently the growth is too sappy to produce good blooms. Secondly, the flowers have not been properly disbudded; indeed, at the base of the flower sent we counted no fewer than nineteen buds in various stages of development. While there may be other causes that play a part in the failure, the two we have mentioned above are important ones, and perhaps answerable for the whole of your non-success. At all events, it will be as well to bear in mind these points another season, and if in doubt of any kind on this or any other subject, write to THE GARDEN, as we are always pleased to assist in every way we can.

PALM LEAF UNHEALTHY (*I. C. B.*).—The small brown spots on the leaf sent are scale insects, which have effected a lodgment thereon. They may be got rid of by, first, sponging the leaf in a solution of soft soap and water, which will render the operation of removing the pests an easy one. Then, with a pointed stick, not too sharp, otherwise the leaf may be bruised, carefully loosen each scale, and wash clean with the soapy solution. Besides getting rid of the insects this will tend to thoroughly clean the leaves. After this, sponge with clear water. Both the washes should be slightly warm, as if cold they are much less effective and also injurious to the plants. It may appear a somewhat troublesome process, but if well done at first it will save a good deal of trouble later on. As the young leaves unfold, a sharp look-out must be kept in case there is any scale on them. We have had no experience of Qdol as a wash for plants, and should prefer soft soap and water of moderate strength.

FRUIT GARDEN.

STORING WALNUTS (*E. C.*).—The best way we have found to be is to bury them in layers of moderately moist sand in boxes, placing the same in a dark position in a cool room.

APPLE TREES WITH STONES UNDER THEIR ROOTS (*R. A. B.*).—The advice given and the reason for doing so is, we think, sound and safe to follow under the conditions stated. Broken brick ends or such material makes a good base if packed closely together so that the roots cannot penetrate through, but porous enough to let water pass. The base should be 2 feet in diameter and 15 inches deep. Cover the stones with 9 inches of turfy soil, treading it down firmly. Plant the trees in the same sort of soil in dry weather, and tread this soil also firmly over the roots.

PEARS REFUSING TO RIPEN PROPERLY (*W. F. M. C.*). Our correspondent's note giving particulars had become stained and many of the words obliterated, making it

difficult to decipher the writing. The variety, as far as we can see, is Catillac. This is a stewing Pear and never very luscious when grown and ripened under the best conditions. The cause of the woodiness of the fruit when ripe must arise, we think, from the inability of the roots to furnish an adequate supply of moisture to the tree at the time it is making its growth. This may arise from more than one cause, such as a deficiency of roots, or, from what we think is more likely, a scarcity of moisture in the soil, the subsoil, in which many of the roots are, forming a dry mass impenetrable to rain. We therefore suggest that your best way of getting better results next year will be by making holes 3 feet deep (with an iron crowbar) at 2 feet apart all round the tree for a distance of 10 feet from its stem, afterwards forming a rim of soil 6 inches deep round this boundary of 10 feet, causing it to form a sort of saucer to hold water. This should be kept full now for a month, the same in spring, and also in dry weather in summer. All the roots, including the deepest, will then have received a thorough saturation, and the result, we hope, will be all you can desire.

KITCHEN GARDEN.

HOLES IN POTATOES (*Salop*).—The holes in the Potatoes are undoubtedly the work of wireworms, which are extremely fond of the tubers. The best method of getting rid of this pest lies in constant cultivation of the soil. Hoeing causes the death of many chrysalides, and birds devour the larvæ that are turned out. The use of superphosphate is also said to check their attacks upon plants near by, while mustard dug in and rape cake used as manure are also said to exert beneficial influences.

CELERY LEAF-SPOT (*Rosebank*).—The Celery is badly attacked by the Celery leaf-spot fungus, *Septoria Petroselinii* var. *Apil*. It is too late to do much now, though picking off the diseased foliage and spraying the remainder with Bordeaux mixture may lessen the disease to some extent. The seeds often carry the fungus, and a means of preventing the trouble is to steep the seeds in hydrogen peroxide for two hours before sowing. The diseased parts and, in fact, all the refuse from the Celery should be burned—not cast upon the rubbish heap.

TO STORE SEED POTATOES TILL SPRING (*Mrs. W.*). The common mistake made in the storage of seed Potatoes is the keeping of them in too warm and dark a position. This causes the tubers to start into growth prematurely, which growths have to be rubbed off before planting, at the sacrifice of much of the strength and fertility of the tuber. The best place in which to keep them is the loft of an outhouse facing north on which the sun does not shine. Keep the doors and windows open day and night as long as favourable weather prevails, but, of course, closed in frosty weather, and the tubers covered with straw as well if necessary. The important point to bear in mind is to prevent the premature growth of the eyes of the tuber. The tubers may be kept in double layers during the winter, but, as soon as growth starts in spring, rearrange in single layers only and encourage them to form strong chits or growths from the eyes before they are planted.

MISCELLANEOUS.

TO DESTROY HEMLOCK AND NETTLES (*Senwick*).—The gas mentioned would kill the tops, but would not kill the roots. Trenching the soil as deeply as the roots go, picking every one out and destroying as trenching proceeds, is the only way.

TO DESTROY WORMS IN A POT (*M. L. C.-W.*).—The worms in your Fern pot may be destroyed by watering with lime-water. There will be no risk of injuring the plant, providing the lime-water is prepared in a proper manner. This may be done by putting a lump of unslaked lime the size of one's fist into a pail half full of water. When the lime is dissolved, the water should be vigorously stirred and then allowed to settle. When it is quite clear it should be poured off without disturbing the sediment, and the plant watered with it. This will bring the worms to the surface, when they may be picked up and destroyed. There is no danger of making the lime-water too strong, as the water will only hold a certain amount of lime in solution.

TO ERADICATE WHITE FLY (*E. G. H.*).—The white fly is one of the worst insect pests in the greenhouse when once it has effected a lodgment on the plants therein. It can be destroyed by the fumes of hydrocyanic acid, but this substance is too dangerous a poison to be recommended for general purposes. We have before now had a great deal of trouble to get rid of this fly, and had the most success when vaporising with the XL All Vaporiser. A single vaporising is of no use whatever, as the eggs are not affected by it, and in a few days they hatch out. For this reason the vaporising should be done at intervals of about three days until the plants are clear. One point to bear in mind is that at the first application of the nicotine vapour many of the insects drop to the ground, and a fair proportion of them are not killed, so that they again quickly take their places on the plants. A good plan to check this is, if the vaporising is done in the evening, to water the paths and underneath the stages with boiling water or paraffin emulsion. Again, the very badly infested leaves had better be picked off and burnt, as they will never resume their natural functions. Where a few plants are infested they may be dipped in a strong solution of soft soap, but this is impracticable where so many are attacked.

NAMES OF FRUIT.—*T. B.*—The Apple is Queen Caroline.—*Mrs. A. R. P.*—Cockle Pippin.—*A. T. H.*—Apple, Cellini Pippin; Pear, Glou Morceau.

NAME OF PLANT.—*M. D.*, *Newton Abbot*.—Probably *Mirabilis Jalapa*, flowers not developed.

SOCIETIES

ROYAL HORTICULTURAL SOCIETY.

THE fortnightly meeting held on November 21 was not of very great extent. Nerines were among the best things shown, though Carnations and Ferns added interest and variety. *Hakea larina* was one of the attractions of the show, apart from the greater attractiveness of the *Chrysanthemums*. Orchids were particularly noteworthy, and some good novelties were on view.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. E. A. Bowles, W. J. Bean, J. Green, G. Reuthe, C. R. Fielder, J. W. Moorman, W. Howe, R. Hooper Pearson, J. Heal, J. Jennings, J. F. McLeod, R. C. Reginald Neville, J. Dickson, C. Dixon, H. Cowley, C. E. Shea, C. E. Pearson, W. P. Thomson, E. H. Jenkins, G. Paul, W. B. Cranfield, J. Hudson and H. J. Jones.

Mr. G. Reuthe, Keston, Kent, showed hardy flowers and Nerines, the latter again in brilliant colour and great variety. A group of *coruscans major* and *flexuosa alba* was very fine. Mrs. Reuthe (salmon, very fine), *Kestonia* (deep salmon overlaid with rose, perhaps the finest of the batch), *Quakeress* (pale salmon), *Dream* (rose and salmon) and *Beethoven* (rose) were some of the best. *N. pudica* (white with faint red lines) is still one of the most graceful and free. *Lapageria rubra*, *Buddleia auriculata* (white), *Oxalis lobata* (golden), *Crocus marathoniensis*, *C. longiflorus* and *C. Tournefortii* were among other things of interest and beauty.

Messrs. Allwood Brothers, Hayward's Heath, showed Carnations in their usually good style. Nancy, a novelty for 1917, is one of the prettiest of soft pink sorts; a most exquisite shade. White May Day (a coming variety), Mary Allwood, Wivelsfield White, May Day, Nora West, Benora and Salmon Enchantress were others in an excellent lot.

Messrs. Herbert Chapman, Limited, Rye, had some good hybrid Nerines, few of which were named. "1 L." (*Planti* × *Lady Dorington*) is of intense rose with carmine overlay; a most brilliant variety.

A delightful group of Begonias from Lord Brownlow, Ashridge Park, Berkhamsted (gardener, Mr. D. Robertson), attracted attention. Apricot (very pretty), Sunrise (brilliant red), Scarlet Beauty and F. H. Cook (salmon) were some of the best. *Sericographis Ghiesbreghtii*, a plant too rarely seen to-day, was also on view.

Messrs. R. F. Felton and Sons, Hanover Square, had a lovely lot of *Hakea larina* in brilliant colour, also *Eucalyptus resinifera* and others, the whole forming a delightful exhibit.

Messrs. H. J. Jones, Limited, Lewisham, staged excellent Chrysanthemums, big stands of Mrs. R. C. Pulling (gold), Mrs. C. Edwards (white) and Mrs. H. Kemp (golden bronze) being prominent among exhibition sorts. Jessica (red), Gertie Ladds (crimson), Excelsior (bronze) and Audrey (yellow and bronze) were excellent singles.

Messrs. H. B. May and Sons, Limited, Edmonton, displayed Begonias and Ferns, the last named, both of hardy and exotic kinds, predominating. Hardy kinds were particularly good, *Scolopendriums*, *Polypodiums* and *Polystichums*, the best types of hardy evergreen Ferns, being seen in great variety. They are of great charm and utility.

Messrs. Wells, Limited, Merstham, showed an excellent table of Chrysanthemums, exhibition, single and others. Ash House Success, Mary Morris (terra-cotta red), Molly Godfrey (deep cerise), Bronze Beauty, Lily Nevill (white, flushed pink) are all singles of high ornament.

Messrs. J. Cheal and Sons, Crawley, showed a great variety of conifers, cut branches for the most part. *Tsuga diversifolia*, *Abies balsamica hudsonica*, *Picea Omorica* (the Serbian Spruce), *Juniperus arizonica*, *Cupressus arizonica* with fruit, and *Pinus Peuke* (Macedonian Pine) were among the more interesting in a collection of a hundred kinds.

Messrs. Low and Co., Enfield, exhibited Carnations and Begonias, Pink Sensation and Countess of Wilton (curious red shade) being notable. Begonia Emta was very fine.

Messrs. Barr and Sons, Covent Garden, had a lovely lot of Nerines, Empress Queen, Vivid, Coral Queen, Leonora (salmon), Sylvia (rose and white) and Nigel (deep carmine with crimson) being among the best.

ORCHID COMMITTEE.

Present: Sir Jeremiah Colman (chairman), and Messrs. J. O'Brien, W. Bolton, S. W. Flory, W. H. White, A. Dye, J. E. Shill, Pantia Ralli, C. H. Curtis, W. H. Hatcher, J. Cypher, J. Charlesworth, W. Cobb, A. McBean, F. J. Hanbury, R. Thwaites, J. Wilson Potter, Stuart H. Low and R. A. Rolfe.

Messrs. Sander and Sons, St. Albans, showed Cattleya Katie, C. Maggie Raphael and C. Prince John (primrose and crimson) among many sorts.

From Messrs. Armstrong and Brown, Tunbridge Wells, *Odontoglossum Harryana crispum*, Cattleya Ajax, C. Maggie Raphael alba, C. Claesiana alba, C. labiata alba and *Laelio-Cattleya Maqueda* were some of the best things.

Messrs. Charlesworth and Co., Hayward's Heath, had the lovely *Odontoglossum Aireworth*, *Brasso-Cattleya Thorntonii* (of a delightful pink shade), *B.-C. Thompsonii* alba and *Laelio-Cattleya Mita* in a choice lot.

Messrs. J. and A. McBean, Cooksbridge, showed Cattleya Enid, *Laelio-Cattleya Thyrone* (gold and crimson), C. Fabia and the pale pink flowered *Brasso-Cattleya Apollo*. Cattleya Brenda, pure white, was very beautiful.

THE GARDEN.

No. 2350.—VOL. LXXX.

DECEMBER 2, 1916.

NOTES OF THE WEEK

NOW that we are in the midst of the planting season, we take this opportunity of asking readers not to be impatient with nurserymen who are unable to despatch their orders immediately on arrival. We sometimes receive complaints about delay, when a little consideration for the many difficulties the trade has to contend with would render the complaints unnecessary. Moreover, planting may be continued until March. It is true that spring-planted trees would not be expected to carry fruits the same year, but in any case it is not wise to crop autumn-planted trees the first year after planting.

Croydon Horticultural Society.—In order to encourage the cultivation of vegetables, and in addition to the usual prizes offered to allotment and cottage garden exhibitors, the Croydon Horticultural Society are offering a large number of prizes to exhibitors of vegetables grown on building sites, &c., which are now being so extensively cultivated in that Borough.

The Spreading Bellflower (Campanula patula).—The warm purple blue flowers of *Campanula patula* make such a delightful picture that it is surprising it is not more often seen in gardens. It is one of the prettiest of our native flowers and occurs in plenty along the hedgerows of the Wye Valley. Unlike *C. Rapunculus*, with which it is sometimes confused, *C. patula* is only of annual or biennial duration. It is advisable to pull up the flowering stems early lest it seeds too freely. Seedlings are ever ready to take the place of those which are past.

The Persimmon at Kew.—Never before have we seen the specimen of Persimmon situated in the Succulent House so well provided with its Orange-like fruits. At the present time the leafless branches are studded with over sixty mature fruits, while last year not more than a

dozen Persimmons ripened on it. The Kew tree is a form of *Diospyros Kaki* known as Yeman, and it is a variety which finds favour in Japan as an edible fruit. It is much more tender than the common *D. Kaki*; moreover, it is not so insipid. Not having acquired the taste for this and many other so-called delicious Eastern fruits for dessert, Persimmons are not generally met with in this country.

The Monterey Cypress.—Considerable attention has been directed to this species of late for forest planting, while it is one of the best

planted in permanent places while quite small—9 inches to 12 inches high—for larger plants are difficult to establish. It is one of the shelter trees used in Tresco to preserve the famous Tresco gardens from being destroyed by wind.

Preparation of the Ground.—No time must be lost in making ready for next year's supply of vegetables. As the crops are cleared from the ground and time permits, the wheeling on of manure, trenching and digging should proceed. The loosening of the soil to let the natural fertilisers—rain, air, frost and snow—

get to work during the winter is most important. The rougher the ground is left, relatively speaking, the better. Some difference in the preparation and manuring of the ground is necessary for the various crops, and with this end in view a rough planting plan for next season should be sketched out.

Horticulture After the War: Important Meeting of the Horticultural Trade.—The President and Council of the Royal Horticultural Society have summoned a meeting at the Royal Horticultural Hall, Vincent Square, Westminster, at 4 p.m. on December 5, at which it is hoped that all those interested in commercial horticulture will be present. The object of the meeting is to consider the interests of the horticultural



SELF-SOWN SEEDLINGS OF CAMPANULA PATULA.

shelter trees that can be used in the South and West maritime counties, more especially in the vicinity of the coast. Its correct name is *Cupressus macrocarpa*, and it is a native of a very restricted area in South California, whence it was introduced about 1838. Under cultivation it may grow from 50 feet to 80 feet or more in height, or in exposed positions it may develop with a wide-spreading head and be less than 30 feet high. On the Sussex Downs it grows well in clay, and further South in light soil in which *Rhododendrons* thrive. It should be

trade and the best means of safeguarding its interests after the war, and to pass a resolution. The chair will be taken by Lieutenant-Colonel the Right Hon. Mark Lockwood, M.P., C.V.O. In view of the urgent importance of the subject it is hoped that the meeting will be as representative as possible of all branches of the horticultural trade.

*** Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Rose Dorothy Perkins as a Weeping Standard.

I send a photograph, taken in my garden last August, of a standard Dorothy Perkins. It was smothered in bloom and a glorious sight.—DOROTHY R. H. WILMES, *Broomy Lodge, near Ringwood, Hants.*

Gooseberry Mildew.—I am directed by the President of the Board of Agriculture and Fisheries to say that his attention has been drawn to certain statements which appear in the "Notes of the Week" in the issue of THE GARDEN under date October 28, and which convey a wholly erroneous impression as to the policy and procedure of the Board as regards American Gooseberry mildew. The statement that the Board have ordered many thousands of Gooseberry bushes to be destroyed is incorrect. The Board have not ordered the destruction of any such bushes for many years past, and at no time required the destruction of many thousands. The statement that a representative of the Board is reported to have advocated the prompt burning of bushes is equally inaccurate. Mr. T. P. Gill is the Secretary to the Department of Agriculture and Technical Instruction for Ireland, and is not an officer of the Board of Agriculture and Fisheries. Dr. Horne's experiments at Wisley were carried out with the knowledge and approval of the Board and were inspected during last summer. They form one of a series of experiments in spraying against American Gooseberry mildew which have been carried on continuously for some years past with the knowledge and co-operation of the Board in Kent, Somerset, Cambridgeshire, and elsewhere. Full details of these experiments have been published from time to time not only in the annual reports of the Horticulture Branch, but also in the Journal of the Board of Agriculture, and advice as to controlling the disease by spraying is given at length in the Board's leaflet on American Gooseberry mildew, a copy of which is enclosed for your information. This leaflet has been widely distributed throughout England.—I am, Sir, your obedient Servant, SYDNEY OLIVIER (Secretary). [Our statements referring to the wholesale destruction of Gooseberry bushes applied to Ireland and a report of the Gooseberry Mildew Conference in Portadown appeared in the same issue. We note that we have confused the procedure of the Department of Agriculture and Technical Instruction for Ireland with that of the Board of Agriculture and Fisheries, and while regretting that we have done so, we fail to see why the disease known as American Gooseberry mildew should receive different treatment in Ireland to that given in England. At the Portadown Conference (see THE GARDEN, October 28, page 531) Mr. C. Lamb (Richhill), who is one of the most extensive growers and preservers of fruit in the North of Ireland, said "between 9,000 and 10,000 Gooseberry bushes of his were destroyed by order of the Department. Thirty-nine bushes in his garden escaped destruction. These gradually became clear of the disease, and had had no trace of it for three or more years. Under present circumstances, without compensation, no farmer would think of planting the bushes." The prompt burning of the bushes is still ordered in Ireland, and although no longer enforced in England we know of at least one large grower

in the Midlands who, finding it impracticable to frequently disinfect and to remove the tips of the bushes in accordance with the instructions of the Board of Agriculture, destroyed his entire stock of bushes. We all know that the disease is of a very serious character, and we believe that the Government Departments both in Ireland and England are anxious to do their best in the interests of the Gooseberry growing industry, but we do not think that sufficient attention is being given to the remedy worked out by Dr. Horne, and in this opinion we are supported by some of our most able fruit-growers. By a simple remedy Dr. Horne, who is the Royal Horticultural Society's Mycologist at Wisley, has succeeded in preventing absolutely the infection of the berries in a diseased plantation. His work in this connection is of the utmost importance and directly affects the food supply of the nation. Dr. Horne has been obliged to abandon his useful



A STANDARD DOROTHY PERKINS IN A HAMPSHIRE GARDEN.

work and to devote his whole time to munition making; and while we should be the very last to underrate the importance of his present occupation, we feel that his useful knowledge and experience is not being applied in the best interests of the country.—ED.]

A Waste of Tomatoes in Jersey.—Tomatoes are grown here in the open fields, and this year's crop has been a splendid one, but, unfortunately, there have not been boats enough to take them away. One evening my father and I calculated that there were 300 tons of Tomatoes waiting on the quay all ready packed for shipping; but, alas! there were no boats to take them, and it was a heartrending sight to see cartloads of beautiful looking Tomatoes being emptied into the sea. In the shops you could buy them at a halfpenny per pound, but you can get them for nothing if you take a basket to the growers.—C., *Jersey*. [Words fail to express our feelings at this great waste of wholesome food. We will see

that this letter is brought to the notice of the Board of Trade, the Board of Agriculture and the Port Authorities in Jersey. The Tomatoes have gone, but there should soon be other food supplies from the Channel Islands, and we hope to hear that steps have been taken to prevent the recurrence of such wanton waste.—ED.]

The Alpine House.—The interesting note under this heading in THE GARDEN (issue November 18, page 558) prompts the suggestion that there are probably many readers who are enthusiastic lovers of alpins for whom a rock garden is not practical politics, but who could rise to the provision of such a house, and would be very glad to do so, if only they could find the necessary guidance. One or more articles in THE GARDEN dealing with such topics as the best type of house; its position; should the glass be unshaded in the height of summer; the best kind and size of receptacle, whether pot or pan; the important questions of watering and ventilating; repotting; a list of names of a few scores of the choicest and most suitable plants; the complementary frame, &c., from the pen of one of your able contributors would be most welcome.—DIFFIDENT. [An article on this subject appears on page 582 of this issue. We are arranging for other notes to follow.—ED.]

Ceterach officinarum.—The article by Mr. Johnson (page 562, issue November 18) on this Fern in North Wales, where he regards it as a discovery on account of its comparative rarity, induces me to say that in some parts of Somerset it is abundant. I have lately been staying in a village in that county, where many of the old stone walls are covered with it. One such wall in a certain by-lane, covered with the Ceterach in company with Asplenium Trichomanes and A. Ruta-muraria, especially lingers in my memory as a thing of beauty. I purposely refrain from mentioning localities for fear of the depredations of unscrupulous collectors.—R. C.

"Somewhere in the Sahara," Africa.—I have been much interested in your correspondence lately on two subjects, *i.e.*, the lack of perfume in the common Musk and the successful cultivation of Finocchio, or Italian Fennel. *Re* Musk in France, I also noticed the odourless quality of Musk there, and I got seed from England from a well-known seed merchant, with the result that in my garden in Seine-et-Marne the plants were equally wanting in perfume. I am now getting seed sent over from Otago, New Zealand, where, along the coastal creeks, it grew in rank profusion, and the heavily laden Musk-perfumed air as one tramped through the bush undergrowth I can only compare with the invigorating perfume of the Wild Mint that one encounters in somewhat similar positions in some of the Southern Counties of England. I trust that my experience with the New Zealand seed will be successful. Now, as regards the Finocchio, *chacun à son goût*; and may I humbly remark that, contrary to Mr. Cox, my experience is that it is a much esteemed vegetable among most Italians and residents in Italy and Tunis. Also, I should imagine that anyone appreciating boiled or braised Celery would readily accommodate his palate to cooked Finocchio. Myself, I prefer both uncooked, and find Finocchio, raw, with oil, vinegar, &c., a most appreciable addition to the good things at table, and I think that the taste requires little more acquiring than that of the Tomato. But, then, the English for some reason or other are very conservative in their menu, so I presume

to suggest that Mr. Cox is, to say the least of it, a little too premature in damping any attempt to introduce any vegetable on his own personal taste. To come back to the cultivation of this vegetable. I also have attempted to grow the Finocchio in my garden in Seine-et-Marne, in good light soil, and must admit to failure. It seems to run to seed without "cabbaging," whatever care is taken in earthing up, &c., though I shall not give up without further trials, as Mr. Cox's relative grew it successfully in England. By the way, this gentleman must have appreciated the vegetable to have attempted and achieved its cultivation.—FOREIGN LEGIONNAIRE.

Profitable Apples to Plant.—I have just read Mr. Gardner's interesting article on the above. Tastes must always differ, but I can never understand why American Mother is so seldom mentioned in lists of the best Apples. To my mind, in flavour it is second only to Cox's, it colours well and is a fairly good cropper, leaving little to be desired for a dessert Apple ready for use a little before Cox's Orange Pippin. I am glad to see your correspondent mentions the keeping qualities of my favourite; last season we had an enormous crop, and the last dish was brought in on April 16. The fruits were a little shrivelled and the flavour not at its best, but still well worth eating. As a dessert Apple Blenheim Orange does not appeal to me, but as a cooker it is excellent. I see King of the Pippins is mentioned, and I suppose the quality must depend on the garden or the locality. Here it is a wretched thing to eat but lovely to look at. Can anyone suggest a reason for the failure of the Apple crops this year? We had a glorious bloom, no spring frosts and hardly any fruit.—HEATLEY NOBLE, Temple Combe, Henley-on-Thames.

Campanula lanata. — Yellow-flowered Campanulas have had but scant attention from lovers of the race, largely owing to the circumstance that they are mostly of biennial duration only—a great defect in the minds of the majority of cultivators of hardy flowers. They are but seldom met with, the most popular for many years being the handsome and distinct *C. thyrsoidea*, a plant which everyone should grow if merely for the pleasure of making its acquaintance.

That species is not, however, the choicest of the race, and pride of place should perhaps be given to that figured in the accompanying illustration, *Campanula lanata*, a native of Rhodope, and a striking and beautiful flower, with blooms which can hardly be described as pure yellow, but are a kind of combination of peach and cream in tints too elusive to attempt to describe without the aid of colour illustrations. The illustration, however, gives an excellent impression of the habit of the plant and the handsome flowers, which are borne on short spikes in such an effective manner above the pleasing leaves. *Campanula lanata* shares with other "yellow" Bell-flowers the reputation of being only a biennial

but it is, in fact, of perennial duration. It is, however, generally lost in winter, either from damp or the attacks of slugs, which do not appear to be deterred by the woolly foliage which gives the plant its specific name. In consequence it should be protected from wet during the winter months; while it should always occupy the hottest, driest, and most sunny place available on the rock garden at that time. It is generally safer to treat it as a biennial, and to sow seeds annually under glass to produce plants to flower the following July. A vertical fissure in the rock garden, where it is protected from overhead wet, is the best position. It is apparently suitable



CAMPANULA, LANATA NATIVE OF SUNNY PLACES IN THE RHODOPE MOUNTAINS.

for a sunny moraine, in which it grows with me. On rockwork, loam, leaf-soil or peat and sand with some grit will form a good compost. *Campanula lanata* is such an attractive plant with its sturdy little spikes and charming flowers that it deserves more consideration than it has as yet received.—S. ARNOTT.

FORTHCOMING EVENTS

December 5.—Royal Horticultural Society's Exhibition and Meeting at Vincent Square, Westminster. Scottish Horticultural Society's Meeting.

December 6.—Perpetual-Flowering Carnation Society's Show at Vincent Square, Westminster.

WALL GARDENING

I AM at present constructing on a large scale a wall garden in the grounds of one of our most important national institutions. The article on "Wall Gardening" in the issue of November 4 has thus a special interest for me. I give now some notes in criticism of it. I have a very steep bank to deal with, averaging a little over 50 feet in height. It is composed of a poor loam, overlying Thanet sand. As it terminates the view in one direction, from the main approach to very dignified buildings, great efforts were made for several years to get growth of almost any kind upon it. This only resulted in weedy grass, some Primroses, and common trees, which speedily showed decay. Wall gardening up the entire height of the bank was then the most feasible remedy, for the difficulties of the site, and should have been adopted at the first. Similar ground has frequently to be dealt with in gardens of all sizes.

The only material I can obtain for building this wall garden is brick and concrete *débris* from demolished buildings. The largest pieces are chiefly half bricks and a few odd blocks of concrete. Properly built, such material is quite suitable, and may often be obtained in most localities at a minimum of cost. This may be frequently an inducement to undertake wall gardening in preference to more costly rockwork with special stone. Following the curve of the road at the foot of my wall garden site, and terminating with a half moon bay enclosing a specimen Austrian Pine, I carried up the wall 6 feet without a break. Above that I formed a series of semi-circular recesses of about 5 feet in depth, and from there carried up about another 6 feet to a winding terrace walk, with a narrow border between it and the top of the wall; while the other side has recesses for seeds. From this walk another 6 feet of wallwork is carried up to an irregular border sloping from a higher terrace walk, beyond which another wall carries up to the hedge at the top of the bank. These two terrace walks are connected by a winding flight of steps, and at another point by a winding path.

Properly built, no concrete base or masonry is required in wall gardening.

What is described in the article in question as such and a brick wall for the back of rockwork argues cost and incompetent work. In a villa garden the concrete base may be legally insisted upon in either raising or lowering ground above or below that of adjacent property; but if two adjacent proprietors agreed to substitute a wall suitable for plant-growing for the ordinary fence, a unique feature of surpassing interest and beauty could be speedily created, and a basis formed for simple, inexpensive, picturesque treatment of the whole ground. The cost of such would usually be much less than that of an ordinary wall, or even fence, and with an irregular natural line the precise boundary could be easily marked by stone

Care must be taken that no water can collect behind the wall, as such would certainly bring down any wall ever built. I saw the terrace wall built of masonry in the present kitchen garden of Penicuik House, Midlothian, and, though very massive, it twice fell before the difficulty of water in the ground behind it was overcome. In the chalk districts of the South such difficulties seldom occur. Plants should be built in in layers of one to every two courses of brick, always bedding each course well in good growing soil. This entails using an enormous quantity of plants, and, unless one has the run of an overgrown place, it is usually difficult to find them.

It is best at first to build in commoner subjects, such as Sedums, Saxifrages, Cerastium, Alyssum, Iberis. These will rapidly cover and give a pleasing effect. They can then be taken out and better plants inserted as time goes on. But to attempt clothing a plant wall by sowing seed in it is to court disappointment and failure. Plants can be inserted between the bricks with a stick at any time with little difficulty, and is much more refined and lady-like work than ordinary cultivation of ground. With all such work the building must be given suitable batter, or inward slope. If space allows, each course should be an inch further in than the one it rests upon, but less will be quite safe.

HURSTCOT.

EDITOR'S TABLE

Flowering Shrubs from Exeter.

It is a great pleasure to see plants which flower in the open at this rather dismal time of the year, and the sprays of flowering shrubs from Messrs. Robert Veitch and Son, Exeter, are a source of unusual interest. Among them is *Elæagnus macrophylla*, a pretty evergreen shrub that always has a silvery metallic lustre on the under sides of the leaves, a characteristic clearly shown in the accompanying illustration. The small, nodding flowers are fragrant, though not very showy. Another shrub likewise with fragrant flowers is the very formidable-looking *Colletia cruciata*, known by many other specific names, including *spinosa*, *ferox*, *bictonensis*, *armata* and *horrida*. We were forcibly reminded of the last name a few days ago on seeing a conspicuous label in a garden, which read: "Beware of the *Colletia horrida*!" There are two forms of this hard spiny shrub, one slender and the other with flat, triangular spines. The two forms are so unlike that no one supposed they were one and the same; in fact, the form known as *C. cruciata* was apparently lost to cultivation, until in 1850 it suddenly appeared in the arboretum at Bickton as a seedling from the slender form known as *C. spinosa*. The identity of these two unlike forms has since been established in other gardens. Another shrub from Exeter is *Viburnum rhytidophyllum*, with flat cymes of creamy white flowers and large leaves of almost flannel-like texture. The flowers are followed with brownish berries turning to blue. The female, *Garrya elliptica*,

with bunches of small blackish fruits that are seldom seen, is also included in this very interesting lot of hardy shrubs.

ALPINE FLOWERS UNDER GLASS

A PHASE of gardening that has not been much considered is the growing of alpine plants under glass. Of course, one prefers to see them in the rock garden, the *Aubrieta* draping the stones with purple and the *Alyssum* making clouds of yellow during the spring months. But early in the year, when cold winds whistle through the tree tops, making a visit to the rock garden unpleasant, one may enjoy these alpine gems in comfort under glass. I believe this way of bringing the flowers closer to one's self originated in the Royal Gardens, Kew, the alpine house there being the home of many rare species and varieties

from the winter shroud of snow to gay, green woods and plains studded with flowers. Transplant the denizens of such climates to our sea-girt Britain, and, so far from being happier, they are sorely bewildered and tried beyond endurance by the alternations of mildness and rigour to which they are subjected; and we who try to cultivate rare and beautiful species under these altered conditions too often meet with disappointment.

Under the protection of a simple glass roof, however, the want of the snow coverlet is not so much felt, and such plants can go on, without any check from wind or weather, to perfect their pure, stainless flowers. It is a rare delight to see the flowers in their freshness under glass. I well remember a wintry day when a keen easterly wind was blowing, but with the flowers as company the unpleasant weather was forgotten. There were panfuls of the little hardy *Cyclamens*—*C. ibericum*, *C. Coum* and others, *Hyacinthus azureus*, the Winter Aconites (*Eranthis hyemalis* and *E. cilicicus*), *Adonis amurensis*, and one of the earliest and most beautiful of the Rockfoils (*Saxifraga Burseriana*) and its larger-flowered

form called major. Both of the last mentioned are easily grown in pans, the dense tufts snowed over with white flowers, which seem whiter still through the soft pink colour of the stems. The smaller Saxifrages are a sheet anchor to those who "garden" under glass. The primrose-coloured flowers of *S. apiculata* are a sweet foil to those of *S. Burseriana*, and there are the Snowdrops, Daffodils, Windflowers or Anemones, the varied-coloured *A. blanda* in particular, and the Irises.

The scent of Violets seems to fill the house; it comes from potfuls of *Iris reticulata*, also known as the Netted Iris, a flower as deep in colour as the wayside wilding that breathes its fragrance into the spring winds. Most of the early Irises are beautiful and interesting—I. Heldreichi, Histrio, histrioides, bakeriana, Danfordiae and

Tauri. I was once shown a potful of *Iris reticulata* that had been grown throughout in a cottage window, and the majority of the same class are as amenable. As the authoress referred to well says in her delightful book, no more fascinating branch could be taken up by the enthusiastic amateur than the furnishing of an alpine house for six months of the year, from November till May, providing occupation for the summer and enjoyment for the winter. The form of it, besides, may be varied, for another arrangement which can be adopted for the alpine house is a permanent rock garden under glass, the lights being so put together that they may be entirely removed during the summer. Evergreen Ferns of low stature, some of the dwarf *Vacciniums* and *Gaultheria*, and other suitable greenery might here be grouped, intervening spaces being left with a view to the introduction of plants in flower in their season from outside frames. Such an alpine house, which may be larger or smaller according to circumstances, would make as charming a winter garden as could well be devised.

A. B.



FLOWERS AND SILVERY LEAVES OF ELÆAGNUS MACROPHYLLA.

As Mrs. Davidson mentions in her excellent book, "The Unheated Greenhouse," the simplest form of this type of house is to be found at Kew. It is nothing more than a low span-roofed glass-house 40 feet long by 9 feet wide, with flat stages on each side of a narrow gangway, and has no heating apparatus of any kind. It is provided, however, with shading to temper sun-heat, should it prove too powerful, as it often does, in early spring. There, throughout the winter and spring months, a succession of low-growing plants and bulbs indigenous to the alpine districts of all parts of the globe may be seen in happier circumstances and in better flower than would be possible out of doors in our changeable climate. A large proportion of such plants perfect their growth rapidly during the short but strong summer heat of their native habitats, and are almost ready to burst into flower again when their progress is arrested, sometimes quite early in autumn, by a thick fall of snow, which tucks them up safely for their long winter sleep. Anyone who has had experience, for example, of a Canadian spring will understand the sudden transformation

EXPERIMENTS IN RAISING DOUBLE SWEET SCENTED BEGONIAS

By JOHN G. WHITE.

PERHAPS no flower has been improved in such a marvellous manner since its introduction into this country as the tuberous Begonia. The hybridist seems to have attained perfection, especially in the double section. Begonias now rival Roses, Camellias, Hollyhocks and Pæonies in beauty, but all have lacked that quality which enhances the value of every flower—a sweet perfume.

For the past ten years I have been endeavouring to raise double sweet-scented Begonias. I hope this account of my experiments will interest the readers of THE GARDEN, and induce some of them to take up the interesting hobby of cross-fertilisation.

How can scented Begonias be raised? This problem was solved in 1891, when a sweet-scented species was discovered at Cochabamba, in the Eastern Andes of Central Bolivia. Seeds of this variety were sent to a Dr. Baumann, who forwarded them to that eminent raiser of floral novelties, H. Lemoine of Nancy. He distributed the seedlings as Begonia Baumannii. The flowers are small, ragged in appearance, pink in colour, and are borne on stiff, erect stems.

Some flowers emit their strongest perfume in the morning, and are quite scentless during the rest of the day; others breathe out their sweetness in the evening. Linnæus called these *florès triste*, or melancholy flowers, because they are generally of a dull colour. The Night-scented stock will be readily called to remembrance as an example. Begonia Baumannii belongs to the former class. The flowers possess fragrance in a marked

degree in the morning, especially in hot weather. I obtained several tubers of B. Baumannii, and when in bloom I crossed and re-crossed the flowers. The resulting seedlings displayed a variety of scents, such as cinnamon, peppermint, honey and tea rose.

In the autumn of 1906, when fertilising double Begonias, it occurred to me that it would be an interesting experiment to cross B. Baumannii with a large-flowered double. As pollen parent I chose one of the sweetest of the Baumannii seedlings. The seed parent was an extra large double of Camellia form and blush in colour. The seed ripened well and was sown the following January, the result being over a hundred seedlings, which were planted in a frame the first week in June. They all flowered in due course. Among the number were many singles and semi-doubles. There were only three really good doubles. Two of them were slightly scented; the other was a gem in size, colour, form and sweetness—in fact, the bloom was a counterpart of the seed parent, with the addition of perfume. The colour is a beautiful pale pink, with a deeper shade in the centre. The scent is difficult to define. It is somewhat like the smell of unripe Muscat Grapes when they are being thinned. The aroma, which is very pronounced in the early morning, seems to become weaker as the day grows older; but the rule is not invariable, as the relative warmth and dampness of the air affects it. The Scottish Horticultural Association recognised the value of the plant by granting it an award of merit, and at the Bath Rose Show in 1914 it created a mild sensation. The *Times*, in its account of the show, honoured it by devoting a paragraph to the "first double sweet-scented Begonia."

Having obtained one large sweet-scented double, I imagined it would be an easy matter to raise another, but my efforts at the second attempt ended in complete failure. On this occasion I crossed Baumannii with a specially refined Camellia double of carmine rose colour. I raised 200 seedlings from this cross. When they flowered there was not one good bloom among them, and those with scent possessed such an evil-smelling odour of carrion that I destroyed the lot. Now, here was a great mystery. The same sweet-scented pollen parent was used in each case. Two years afterwards I think I discovered the cause of the foul odour. When employing the pollen of a beautiful single, fringed, yellow Begonia for the purpose of fertilisation, I noticed the same disagreeable scent emanating from the stamens. I still have this variety, and anyone who attempts to smell the flowers turns away in disgust. The discovery of this phenomenon led me to examine



A PARENT OF THE DOUBLE SWEET-SCENTED BEGONIA.

B. Baumannii, from the figure in the "*Botanical Magazine*," t. 7540. It is a native of Cochabamba, in the Eastern Andes of Central Bolivia.

the female flowers of the carmine rose double. Sure enough, the unpleasant odour was present, especially so in bright sunshine. Does all this show that the scentless Begonia was evolving scent, although not of a sweet nature? Perhaps some of the scientific readers of THE GARDEN can solve the riddle.

The third attempt was not more successful. A cross was effected between the small pink Baumannii and a large and perfectly formed Camellia double yellow. Nearly all the resulting seedlings were yellow, and there were a larger proportion of doubles among them than in any of the other crosses. One plant produced the largest leaves I have ever seen in a Begonia; the bloom was slightly scented, but of very bad form. Another scented flower was of such a drooping nature that I used it for a hanging basket; while a third, the sweetest of all, was a small, compact double, only an inch in diameter. It was a strange mixture from the same seed-pod, but herein lies the surprises of cross-breeding.

Each year afterwards I continued experimenting, but had no luck whatever except in 1913, when I discovered among the seedlings a large and beautifully modelled bloom of a blush colour, the result of a cross between Baumannii and a double white. The plant was very dwarf, and the flowers had a faint odour of a wild Rose. Crossing this with Baumannii, the following colours were obtained, all the blooms being large doubles and scented: Two blush, pure white (of bad form, but extra sweet), apricot, and rose pink, which, together with the variety raised in 1907, is the net result of ten years' work. Progress must necessarily be slow, but perhaps in the future the tuberous Begonia will gain what many new Roses lack—a sweet perfume; and has not that been aptly described as the soul of a flower?



"A GEM IN FORM AND SWEETNESS."
The first double sweet-scented Begonia.

NOTES FROM THE RIVIERA

BY EDWARD H. WOODALL.

Winter-Flowering Sweet Peas.—This season I sowed the French strain of winter-flowering Sweet Peas and find several decided marks of difference between the English and French strains. Both have their excellence, and both have defects when compared with the summer varieties. The English strain has decidedly finer flowers and longer stalks; the French strain is much neater in habit and freer in flower. It is, moreover, much quicker in coming to the flowering stage, so that for pots it is the preferable strain. The range of colour in the English strain is much the best, but, on the other hand, the white form is better and much freer than the English; and a good white Sweet Pea is a charming winter flower in this climate. It is a surprise to me how well they thrive in big pots on terrace steps or near terrace walls. One reason is, I think, that while Sweet Peas enjoy all the warmth they can get in midwinter, they cannot stand the heat in autumn when they must be sown. So it is best to sow them in pots in a very cool and shady place, and when the sun power declines they can be brought out and placed in the full sun, which they enjoy after the middle of November. Such pots are very useful also when plunged in the ground to replace some big-growing autumn-flowering plant that has to be cut down or replaced. Last autumn the month of October was unusually cold for this climate, and several of the more tender autumn-flowering shrubs never came to their full beauty. This year we have had very warm and very wet conditions during the month, with only two days that could be called chilly.

Salvia frutescens or arborea is radiant with branching panicles of scarlet flowers and bracts, weighing down the branches as the Lilacs do in spring. It is a beautiful shrub, and if it came to full perfection every year, and did not so easily drop its flowers and buds when assailed by wet or cold wind, it would be a universal favourite. I never saw a more melancholy instance of a plant's nose being, so to say, "put out of joint" than the other day, where a fine *Cratægus Pyracantha Lalandi* was all aflame with its orange berries till the more brilliant and elegant *Salvia* began to flower close by. The poor *Cratægus* was reduced to a muddy and dull thing at once, while the brilliant and airy panicles of the *Salvia* shone conspicuously where the other had previously been so admirable.

The Tree Dahlia (*D. imperialis*) is also in great beauty this autumn, and has thoroughly enjoyed the warmth and moisture. I understand better now why it is such a failure in England. It needs keeping much drier in summer weather,

for when I returned in mid-September I found my plants looking so droughty and poor that I quite thought they had been badly treated; but when the rain came in the end of September and a little manure water was added, they shot up and made finer panicles and with larger flowers than I have before seen them, without quite such an excessive length of stem and leaf below. I am quite sure that if anyone tried them in a big tub in a hot corner during the summer in England, they should be kept very much on the dry side and checked as far as moisture is concerned till the end of September, even if put under glass before that date. Both the Tree *Salvia* and the

in spring when growth is just beginning, but it is much the better for it. In this way its naturally straggling habit of growth is kept in order, and the length and vigour of its annual shoots (now in flower) are more than doubled. So few *Acacias* really are benefited by annual pruning that this is worth mentioning.

NEW AND RARE PLANTS

AWARDS OF MERIT.

Chrysanthemum Lady Stanley.—A decorative variety of considerable beauty, the silvery pink tone which dominates the whole flower also adding an unusual charm to what is undoubtedly a sterling novelty. Its crisp florets bespeak good staying power.

Chrysanthemum J. Bryant.—A pure white Japanese of high exhibition standard, a massive flower as shown, and with other good attributes beloved of the exhibitor of these flowers.

Carnation Rose Sensation.—Said to be a sport from *Pink Sensation*, which by general consent is much the largest of the perpetual-flowering class. The new-comer is of rose scarlet tone, firm and with self-supporting stem, and, like its ancestor, unfortunately without perfume. These three novelties were shown by Messrs. W. Wells, Limited, Merstham.

Chrysanthemum Mrs. Moss.—An exhibition single of large size and rich butter yellow tone. A big vase of it was most effective. From Mr. Philip Ladds, Swanley Junction.

Cypripedium Mme. Albert Fevrier (*C. Germaine Opoix* × *C. insigne* Harefield Hall).—A shapely variety of considerable merit and with but little leaning to the last-named parent. The broad, roundly formed dorsal sepal is copiously spotted with crimson and chocolate, the sepal chestnut and green, with lip of like colour. Shown by G. F. Moore, Esq., Chardwar, Bourton-on-the-Water.

Cattleya Claesiana alba Orchidhurst Variety (*C. intermedia alba* × *C. Harrisoni alba*).—The exquisite purity of this, wedded to perfect form, renders it well-nigh unique; certainly the best of its class. The petals are ovate and well imbricated; the lip lightly fringed with a light touch of sulphur yellow in the throat.

Cattleya Monastir (*C. Freya* variety Mrs. Fred Sassoon × *C. aurea*).—A variety of rich ruby red colour and considerable brilliancy, the overlapping petals adding to the importance of a good variety. The rich crimson lip is lined with gold at the base. These two fine novelties were shown by Messrs. Armstrong and Brown, Tunbridge Wells.

The foregoing were before the Royal Horticultural Society on November 21, when the awards were made.



DAHLIA IMPERIALIS IN MR. E. H. WOODALL'S GARDEN AT BRANCOLAR, NEAR NICE.

Tree Dahlia can grow to a height of 10 feet, so that when crowned as they now are with masses of flower, they are a great delight to the old as well as the new comer on this coast. I have spoken in other years of the beautiful and free-flowering

Acacia podalyriæfolia (The Pride of Queensland), which is in its greatest beauty in the months of November and December. Formerly I used to think it was useless to recommend it for growing in pots for conservatory decoration, but I am glad to say that after some years' experience I can heartily recommend it for this purpose. It is extremely hardy if not overwatered, and it has the very great advantage of not only bearing severe pruning

THE PLANNING OF GARDENS.—IV

BY THACKERAY TURNER.

(Concluded from page 561.)

THERE must be an edging or kerb between a path and a border. Stone is the best for this purpose—rough stones set on edge—but it comes expensive. Box edging does very well, but there is the yearly expense of cutting it. Variegated Euonymus can also be used, also Pinks, kept cut. A border of turf looks well, but it has not only to be kept cut with a lawn-mower, but the edges have to be trimmed, and this is expensive in labour. Of all borders the edging tiles made by brick factories are the least satisfactory. They give a hard, straight line which is unsightly. However, almost anything is better than nothing.

In garden planning the spaces for turf need careful consideration, or much time and labour will be wasted. A very large expanse of lawn can be enjoyed if a pony or horse is kept, provided there are no trees planted on the lawn and no cut-out beds. For example, a row of a dozen trees along the edge of a lawn add about an hour to the time taken to cut it. Apart from the narrow strip with the trees, the whole lawn, measuring, say, 50 yards by 25 yards, can be cut in less than three-quarters of an hour. Again, when grass goes right up to a wall, the machine cannot get nearer than 6 inches or 8 inches from the wall, and this strip of 6 inches or 8 inches must be cut by hand. It is considerations of this kind which govern the extent of garden, or the extent of lawn in a garden,

which can be effectively kept in order by a given amount of labour. The arrangement of trees is another formidable difficulty in garden planning. A garden of any size should have some forest trees. The question is, how much space should you allow them?

Obviously, if a tree occupies about the right space when it is twenty-five years old, it will throw everything out of proportion when it is fifty years old. Many an old garden would be improved almost out of recognition by having some full-grown trees cut down. The gardener does not hesitate to cut down shrubs which have outgrown their position; why should he not doom trees which have done the same? Nothing short of a palatial garden is big enough to stand full-grown forest trees, and I think the right solution of the difficulty is to keep on planting young trees which may take the place of those which have outgrown the garden. For the most part a new garden suffers more from the lack of trees 25 feet or 30 feet in height than from anything else, and for this reason the designer is justified in planting quick-growing species, such as Poplars or Acacia, with a view to the quickest means of producing an effect and to serve as shelter against wind, and to draw up the slower-growing trees which are to provide permanent mass and shade. In due time the quick-growing trees can be removed.

A garden without visible water is never quite satisfactory, and it is so easy to introduce that there is no excuse for leaving it out; besides which, water dipped from a pond, and therefore of the same temperature as the air, is ideal for watering plants.

Ponds should not be more than 2 feet deep, as that is the depth which best suits the commoner Water Lilies. Put some fish in the pond

to keep down the larvæ of gnats; and what more lovely than goldfish swimming or hanging motionless among the Water Lilies? Garden economy is well exemplified by a Water Lily pond. There is no weeding, digging or watering, or picking off dead flowers.

I will close these notes on garden planning with a plea for plenty of seats. To enjoy a garden thoroughly you must be able to sit down and look at it, so there should be seats at every vantage point, and where possible seats should be under cover, so that they may always be dry. The roof protecting a seat also gives the designer a fine opportunity of making a firm erection for climbing plants.

A ROCK AND WATER GARDEN AT SELLY HILL, BIRMINGHAM

THE delightful view shown in the accompanying illustration depicts quite a transformation scene, and illustrates the great possibilities for the picturesque in the most uncompromising sites. Before the photograph was taken the site was a disused brick and tile works, and by the introduction of rock, water and judicious planting in all its variations, including a well-arranged bog and aquatic garden—planned and carried out by Messrs. Pulham and Son—constituting the most attractive feature, a beautiful and well-arranged garden was made for the late Mr. Webley, of revolver fame, and a real garden enthusiast and lover. The photograph was taken two years after completion, thus showing the quick and luxuriant growth made in so short a time within two and a half miles from the centre of the City of Birmingham.



A SCENE AT SELLY HILL, BIRMINGHAM. ONCE A BRICKFIELD, NOW A BEAUTIFUL GARDEN.

THE ROSE ANALYSIS, 1910-1916.—I

BY COURTNEY PAGE, SECRETARY OF THE NATIONAL ROSE SOCIETY.

FOR the last twenty-nine years this analysis has appeared over the name of one who has always been held in the greatest esteem by all Rose-lovers, and who, after many years of untiring labour in the interest of his favourite flower, has recently been gathered to his fathers. Year by year, as the Rose Analysis is carried on, the name of Edward Mawley will ever be associated with it, and deservedly so, for it is entirely owing to his untiring energies that the records of past years were made and kept up to date. In addition to his being a Rose expert, Mr. Mawley was also a weather expert, and as successful Rose-growing largely depends upon the weather, he, from his records, was enabled to give us a complete account of its vagaries during the particular year under review. I shall have to rely upon my own notes, which are somewhat scanty. Taking it on the whole, the past season was perhaps the worst I ever remember for Roses. The year 1912 was a bad one, but 1916 will, I think, hold the record. The winter was unusually mild and the Roses kept on growing well into December, consequently many of the shoots never properly ripened. After pruning-time the weather still remained wet and cold, and continued so, more or less nearly up to the end of May. June, always the most critical month for Roses, opened warm, but soon changed, and the consequence was that the plants which had made a fair amount of growth had a severe check from which they never really recovered. The leading exhibition of the National Rose Society was held on June 30, a date far too early for most rosarians. The previous day there was a succession of heavy thunderstorms, and these circumstances, combined with the lateness of the season, somewhat spoiled the show, and it was consequently the smallest ever held at the Royal Botanic Gardens.

In order that the following table of Hybrid Perpetuals and Hybrid Teas, and also that of the Teas and Noisettes, may be clearly understood, it has been thought advisable at the outset to explain the system upon which they have been compiled. For the last thirty years the name of every Rose in the first, second and third prize stands has been taken down at the great Rose show of the year held annually at the Royal Botanic Gardens. The results obtained have each year been tabulated, and the varieties arranged in the published tables according to the average number of times every Rose was staged at the last six exhibitions. This applies to nearly two-thirds of the Roses which find places in the two tables. For the sorts of more recent introduction the longest trustworthy averages are given instead; while the still newer varieties are placed according to their records for the last exhibition alone.

HYBRID PERPETUALS AND HYBRID TEAS.

As in previous years, the varieties in the accompanying table of Hybrid Perpetuals and Hybrid Teas have been arranged according to the number of times they were staged in the prize stands at the last six exhibitions of the National Rose Society. This year Dean Hole has displaced Frau Karl Druschki, which for the last two years has headed the list; while Mildred

Grant still occupies the position it has now held for four years.

On comparing the first twelve varieties in this year's table, we find two varieties have had to go down—one our old favourite Hybrid Perpetual Mrs. John Laing, and the other Florence Pemberton, their places being taken by Mrs. J. H. Welch and H. V. Machin respectively. In the next twelve varieties in the present table Florence Pemberton takes the place of Mrs. J. H. Welch, which has risen to No. 7; those two one-time favourites, Ulrich Brunner and Her Majesty, are displaced by Mrs. John Laing and Gloire de Chédane-Guinoisseau; while two new-comers in last year's table which owed their position to

the one show only—Mrs. A. Carnegie and Coronation—are displaced by Mélanie Soupert and Mr. Amy Hammond.

That fine exhibitor's Rose, Dean Hole, which heads the list this year, and Frau Karl Druschki, which it displaced, have the lowest actual record for the last eight years; while Mildred Grant, which is third in the table, has only once before—in 1913—been so frequently exhibited.

The following established varieties have never before been so frequently staged: William Shean, Lyon Rose, Mrs. J. H. Welch, Mélanie Soupert and Mabel Drew; while, on the other hand, Her Majesty, Mrs. J. Laing, A. K. Williams and Ulrich Brunner have never been so sparsely shown.

HYBRID PERPETUALS AND HYBRID TEAS.—TABLE I.

Position in Present Analysis.	Average No. of Times Shown.	No. of Times Shown in 1916	Relative Proportion to the Average.	Name.	Date of Introduction.	Raiser's or Introducer's Name.	Colour.
1	43.5	38	...	Dean Hole, H.T.	1904	A. Dickson and Sons	Pale silv'ry rose, deeper
2	39.7	23	...	Frau Karl Druschki, H.P.	1900	P. Lambert	Pure white [shaded]
3	38.5	47	...	Mildred Grant, H.T.	1901	A. Dickson and Sons	Ivory white, tinted peach
4	34.8	54	...	Lyon Rose, H.T.	1907	Pernet-Ducher	Salmon rose, suffused
5	34.2	77	...	William Shean, H.T.	1906	A. Dickson and Sons	Creamy pink [yellow]
6	32.0	30	...	George Dickson, H.T.	1912	" "	Deep velvety crimson, heavily veined
7	30.3	30	...	Bessie Brown, H.T.	1899		Creamy white
7	30.3	49	...	Mrs. J. H. Welch, H.T.	1911	S. McGredy and Son	Rose pink
9	29.5	30	...	Hugh Dickson, H.P.	1904	Hugh Dickson	Crimson, shaded scarlet
10	29.2	34	...	Mrs. Theodore Roosevelt, H.T.	1903	The E. G. Hill Co.	Flesh, tinted pink
11	27.8	30	...	J. B. Clark, H.T.	1905	Hugh Dickson	Scarlet crimson, shaded
*12	25.0	25	...	H. V. Machin, H.T.	1914	A. Dickson and Sons	Scarlet crimson [plum]
13	23.8	15	...	Florence Pemberton, H.T.	1902		Creamy white, edged blush
*14	23.0	23	...	Augustus Hartman, H.T.	1914	B. R. Cant and Sons	Brilliant metallic red
15	21.8	4	...	Mrs. John Laing, H.P.	1887	Bennett	Rosy pink
16	19.5	30	...	Mrs. A. E. Coxhead, H.T.	1910	S. McGredy and Son	Claret red
17	19.2	23	...	Lady Ashtown, H.T.	1904	A. Dickson and Sons	Pure deep pink
18	18.0	26	...	Mabel Drew, H.T.	1911		Creamy yellow
19	17.8	32	...	Caroline Testout, H.T.	1890	Pernet fils-Ducher	Bright warm pink
20	17.7	20	...	Gloire de Chédane-Guinoisseau, H.T.	1907	Chédane-Guinoisseau	Crimson
21	16.5	17	...	Avoca, H.T.	1907	A. Dickson and Sons	Rich crimson [amethyst]
22	16.2	51	...	Mélanie Soupert, H.T.	1905	Pernet-Ducher	Pale sunset yellow, suffused
23	15.3	28	...	Mrs. Amy Hammond, H.T.	1911	S. McGredy and Son	Cream, shaded amber
23	15.3	19	...	Mrs. Cornwallis West, H.T.	1911	A. Dickson and Sons	White, pink centre
*25	15.0	15	...	Florence Forrester, H.T.	1914	S. McGredy and Son	Pure white
26	14.7	2	...	Ulrich Brunner, H.P.	1881	Levet	Cherry red
27	13.3	1	...	Her Majesty, H.P.	1885	Bennett	Pale rose
*28	13.0	13	...	Mrs. Charles Russell, H.T.	1913	Waban Conservatories	Rosy carmine, deep r'centre
*28	13.0	13	...	Mrs. Andrew Carnegie, H.T.	1912	J. Cocker and Sons	Creamy white
30	12.0	15	...	Edward Mawley, H.T.	1911	S. McGredy and Son	Rich crimson
31	11.3	17	...	Mrs. George Shawyer, H.T.	1911	Lowe and Shawyer	Pale rose
32	11.0	11	...	Elizabeth, H.T.	1911	B. R. Cant and Sons	Rose pink
*32	11.0	11	...	Mrs. George Norwood, H.T.	1914	Elisha J. Hicks	Bright rich pink
32	11.0	25	...	Mrs. W. J. Grant, H.T.	1895	A. Dickson and Sons	Deep rosy pink
35	10.8	4	...	Horace Vernet, H.P.	1866	Gullot	Scarlet crimson, dark
35	10.8	4	...	Dr. O'Donel Browne, H.T.	1908	A. Dickson and Sons	Carmine rose [shaded]
35	10.8	15	...	Jonkheer J. L. Mock, H.T.	1909	Leenders	Deep rose, carmine reverse
38	10.7	19	...	St. Helena, H.T.	1912	B. R. Cant and Sons	Cream, tinged yellow, soft pink centre
39	10.3	13	...	Mrs. Stewart Clark, H.T.	1907	Hugh Dickson	Bright cerise pink
39	10.3	13	...	Yvonne Vacherot, H.T.	1906	Soupert-et-Notting	Porcelain white, tinted
41	9.5	4	...	A. K. Williams, H.P.	1877	J. Schwartz	Crimson [blush]
41	9.5	2	...	Earl of Warwick, H.T.	1904	W. Paul and Son	Salmon pink, shaded rose
41	9.5	3	...	Oberhofgärtner Terks, H.T.	1901	Welter	Ivory white, tinted lilac
44	9.3	6	...	Lady Barham, H.T.	1911	A. Dickson and Sons	Salmon pink [rose]
*45	9.0	9	...	Colleen, H.T.	1914	S. McGredy and Son	Brilliant rose, shaded pink
*45	9.0	9	...	Edgar M. Burnett, H.T.	1914		Flesh, tinted rose
*45	9.0	9	...	Gorgeous, H.T.	1915	Hugh Dickson	Orange yellow, flushed reddish copper
48	8.5	3	...	Alice Lindsell, H.T.	1902	A. Dickson and Sons	Creamy white, pink centre
48	8.5	4	...	Gustave Piganeau, H.P.	1889	Pernet fils-Ducher	Carmine, shaded lake
50	8.3	13	...	Mamie, H.T.	1901	A. Dickson and Sons	Dull rose carmine
51	8.2	13	...	G. C. Waud, H.T.	1908	" "	Rose, suffused orange and scarlet
*52	8.0	8	...	Mrs. Charles Reed, H.T.	1914	Elisha J. Hicks	Pale cream, tinted peach
53	7.8	8	...	Lady Ursula, H.T.	1908	A. Dickson and Sons	Flesh pink
54	7.2	2	...	Alfred Colomb, H.P.	1865	Lacharme	Bright red
54	7.2	3	...	Lohengrin, H.T.	1903	Schmidt	Silvery pink
56	7.0	6	...	British Queen, H.T.	1912	S. McGredy and Son	Creamy white
57	6.8	8	...	Ethel Malcolm, H.T.	1910		White, shaded blush
57	6.8	2	...	Lady Moyra Beaucherc, H.T.	1901	A. Dickson and Sons	Madder rose, with silvery
57	6.8	2	...	Mrs. J. Bateman, H.T.	1905		Carmine rose [reflex]
60	6.7	1	...	Suzanne M. Rodocanachi, H.P.	1883	Léveque	Glowing rose
61	6.2	11	...	Queen of Spain, H.T.	1907	S. Bide and Sons	Pale flesh
*62	6.0	6	...	Mrs. R. D. McClure, H.T.	1913	Hugh Dickson	Clear pink
63	5.7	6	...	Mrs. David McKee, H.T.	1904	A. Dickson and Sons	Creamy yellow
64	5.2	3	...	Claudius, H.T.	1910	B. R. Cant and Sons	Carmine rose

* New varieties, whose positions are dependent on their records for the 1916 show only.

In his analysis last year Mr. Mawley drew attention to the remarkable decline in the number of Hybrid Perpetuals in the table. This is due to the rapid advance made by the Hybrid Tea, which not only gives a longer flowering season, but a bigger and more refined range of colour as well. In the analysis for 1912 there were twenty-three Hybrid Perpetuals included, while in the table for the present year the number is reduced to eleven. The principal changes worth mentioning are Ulrich Brunner, which this year drops from No. 16 to No. 26; Horace Vernet, from No. 25 to No. 35; Dr. O'Donel Browne, from No. 27 to No. 35; that one-time favourite, A. K. Williams, from No. 28 to No. 41; Gustave Piganeau, from No. 33 to No. 48; Alfred Colomb, from No. 42 to No. 54; and Suzanne Marie Rodocanachi, from No. 42 to No. 60. On the other hand, Mrs. George Shawyer goes from No. 45 to No. 31; Mélanie Soupert, from No. 37 to No. 22; and Mrs. Amy Hammond from No. 41 to No. 23.

Mr. Mawley always sounded a note of warning to those Rose-growers who were not exhibitors, in that Roses that they saw so very finely exhibited at the shows were not all suitable for general garden cultivation. Such Roses as Frau Karl Druschki, Mrs. John Laing, Caroline Testout, Ulrich Brunner, Mabel Drew, Hugh Dickson, Lady Ashtown and Mrs. A. E. Coxhead are among the best varieties for general garden cultivation; while varieties such as Bessie Brown, Dean Hole, Horace Vernet, Gloire de Chédane-Guinoisseau, William Shean and Mrs. Cornwallis West excellent as exhibition Roses, are quite unsuitable for general garden cultivation.

THE NEWER HYBRID PERPETUALS AND HYBRID TEAS.

In this analysis by "newer" Roses is meant those varieties that are five or fewer years old. In the table of Hybrid Perpetuals and Hybrid Teas there are twenty-two Roses entitled to be so classed, or one less than in last year's. Taking the varieties (eight) first distributed in 1911, Mrs. J. H. Welch, rose pink with enormous petals, has this year risen from No. 14 to No. 7. Mabel Drew, a lovely creamy yellow quite superseding Kaiserin Augusta Victoria, has this year gone from No. 23 to No. 18. Mrs. Amy Hammond, cream, shaded amber, has this year risen from No. 41 to No. 23. Mrs. Cornwallis West, pearly white, purely an exhibitor's Rose, has practically remained stationary at No. 23. That fine rich crimson Rose Edward Mawley has this year risen from No. 33 to No. 30. Mrs. George Shawyer, pale rose, has this year risen from No. 45 to No. 31. On the other hand, Elizabeth, rose pink, has this year dropped from No. 29 to No. 32. Lady Barham, salmon pink, an enormous flower that requires a hot season to open well, has this year dropped from No. 29 to No. 44.

Of the four varieties that were sent out in 1912, the lovely dark velvety crimson Rose George Dickson has dropped from No. 4 in last year's table to No. 6, but it is certain to improve on that figure next year. Mrs. Andrew Carnegie, creamy white, purely an exhibitor's Rose, has this year fallen from No. 13 to No. 28. St. Helena, cream, tinged yellow, has this year risen from No. 47 to No. 38; while that lovely white variety British Queen has this year dropped from No. 47 to No. 56.

Of the three varieties sent out in 1913, Coronation (H.T.), pale rose pink, which first made its appearance in last year's table at No. 17, disappears from this year's table, it only being

exhibited in three prize stands this year. This can only be temporary, and one will expect its return with flying colours next year. Mrs. R. D. McClure, salmon pink, also narrowly escapes, having dropped from No. 57 to No. 62; while, on the other hand, Mrs. Charles Russell, a new-comer last year, a lovely carmine rose, has this year deservedly risen from No. 57 to No. 28.

Of the varieties first distributed in 1914, H. V. Machin a lovely scarlet crimson, has this year risen from No. 29 to No. 12. That fine brilliant metallic red Rose Augustus Hartman has risen from No. 21 to No. 14. Florence Forrester, of the purest white—a much better flower than Frau Karl Druschki—has this year made a tremendous leap from No. 52 to No. 25. It is a pity that the above three fine Roses are not better growers. That lovely Rose Mrs. George Norwood, bright rich pink, exquisitely scented, has fallen from No. 29 to No. 32. Colleen, brilliant rose, shaded pink, with huge shell petals; and Edgar M. Burnett, flesh, tinted rose, a huge flower, sweetly scented, take their places at No. 45. Mrs. Charles Reed, a very pretty Rose, pale cream, tinted peach, and a good grower, takes its place at No. 52.

The year 1915 is only represented by one variety, Gorgeous, orange yellow, flushed red, which appears at No. 45. This is a very fine Rose which is certain later on to take a much higher place.

With one exception the whole of the before-mentioned twenty-two Roses were raised in the British Isles.

Further particulars of the newer Roses will be given in the "Special Audit of the Newer Hybrid Perpetuals and Hybrid Teas" in Table IV.

(To be continued.)

SOME "WHYS" FOR THE WISE

BY CLARENCE PONTING.

Greening and Sprouting of Seed Potatoes.—

If there is one section of THE GARDEN which I like more than another it is the "Correspondence," as herein one finds the actual difficulties, and in some cases the remedy for such troubles, discussed by amateurs and experts who speak from actual experience. Now, as an example, let us take this subject. Every text-book upon the cultivation of that noble tuber, the Potato, lays great stress upon the selection of seed tubers for the following season, after the crop has been taken up. Two of the main points found in these instructions are, first, that the selected seed tubers should be exposed to the sun for a few days in order that they may become green; secondly, that having become "greened," they should be placed into boxes with the eyes upwards in order that they may produce short green sprouts. This is all very nice and easy, and without asking what benefit will accrue, we proceed to follow out this advice. If a good crop results the next season, we pat ourselves on the back and think what wonderful gardeners we are; whereas probably the same result would have taken place had the Potatoes been laid out in some frost-proof place until planting-time.

Now comes the inevitable query. Why do we take the trouble to "green" our seed Potatoes?

The sprouting of them does seem to have some reason behind it, because we all know that a Potato carrying all the sprouts which are produced from the eyes would, if planted in this condition,

result in a crop of very mixed produce. Some would be small, while a few would be of a nice useful size. If, however, we reduced these sprouts to one or two by cutting out all the weakest except these one or two, the resulting crop would be very even in size, or, in the case of where only one sprout was left, they would probably be very large.

So much for the sprouting. There is some sense in that. But why on earth do we "green" them?

I have asked numerous professional and amateur gardeners why this is done; but they all reply that it is the correct thing to do. One said that it was to harden the skins—a result which could be obtained by mere exposure to air in a dry shed. Probably the most sensible reason was that given by an old man who works an allotment near my garden, and who has saved his seed tubers so many years that he does not know the name of his original stock. "Well," he said, "you see, it's like this 'ere. If I takes my 'taters' in nice and clean like, the missus puts 'em into t' pot. So I puts 'em into t' sun for a bit, and she knows I wants 'em for seed. You wouldn't catch 'er a-putting green 'taters' into t' pot, I can tell yer." That is all very well in its way, but surely we do not all "green" our Potatoes for this reason. I must confess that I have "greened" Potatoes for years, but always wondered what benefit was derived from so doing.

Carrot Fly.—Let us give a little attention to our enemy *Psila rosea* (I got these names from a book, and am not a professor on the subject).

Why is it that a bed which I prepared by boring holes with a crowbar, afterwards filling with potting compost and sowing a few seeds upon the tops of these prepared holes, has produced the most perfect Carrots, free from any spot or blemish; while a few lines drilled next to them upon the same ground and afterwards thinned produced the most worm-eaten specimens one could find in a day's march?

Our Carrot experts will at once inform us that it was because the seedlings were not "firmed" after the thinning operations. But there they would be wrong. The same treatment was given to the drilled rows as to the seeds sown on the prepared holes, because I wished to experiment with these rows in order to see if any benefit accrued from the additional labour involved by preparing the holes with a crowbar. Now, however, thanks to the Carrot fly, I shall have to try the experiment again another season.

Clubbing in Brassicas.—Another query which will interest the world at large is the question as to why Cabbages, and, in fact, all the Brassica tribe, become "clubbed" at the root.

"Oh, ask me something easy!" says "Bedwin Eckett." "This is the result of a sour soil. Well lime your ground and you will be free from the pest!"

"Thank you, I have done so," but with very little beneficial result. Besides, another query. If this was the remedy, why is it that in a row of plants from the same seed-bed some will be found to be "clubbed" and others not? And, again, why is it that in a properly thinned seed-bed not one plant in a thousand will be found so affected? And yet if these plants were lifted and transplanted on the same bed, they would be almost certain to produce "club" among a large number of them.

Acting upon the information gained by watching the seed-beds, I find that it is the check they

receive upon being transplanted which gives the slime-fungus an opportunity to attack the plants. Seed sown upon ground which invariably produced "clubbed" results, and left to mature in this position, were quite free from this pest. I wonder if other gardeners have noticed a similar result.

It is certainly a nuisance to have to waste ground by sowing where the plants have to mature, but in a garden such as mine this appears to be the only thing to do, as transplanted greens invariably

NEW SAVOY CABBAGES

AMONG the many trials conducted this year at Wisley under the auspices of the Royal Horticultural Society, that of Savoy Cabbages has not been the least important. Seeds of forty-seven stocks of the leading commercial varieties were received and sown, the net result being that one secured



SAVOY CABBAGE NORWEGIAN.

get what my friend the allotment gardener calls "club-footed."

Green Top Beetroot.—What a conservative lot we gardeners are, to be sure! Nine out of ten of us sow the Beetroot bed year after year with the purple-topped variety, because we think that unless the top is of this colour the roots cannot be Beetroot.

Anyone who has tried Cheltenham Green Top Beetroot will never give place to the old-fashioned purple-leaved varieties, which more often than not are coarse and stringy. Cheltenham Green Top is a superb Beetroot, as soft and melting as a William Pear, and every bit as sweet.

an award of merit, two others three marks each, and four, two marks each. In this way, and in the opinion of a sub-committee of vegetable experts, forty varieties were, by comparison, of insufficient merit to justify any award, the remaining seven presenting varying degrees of undoubted excellence. This, while among the chief values of the trial, is of exceeding importance at this time when special effort is being made to obtain the maximum yield from the land. Those now named are the varieties which received recognition, all of which were on view at the fortnightly meeting of the society at Vincent Square on November 21.

AWARDS OF MERIT.

Norwegian, from Messrs. Barr and Sons, Covent Garden, W.C., is of a bold habit of growth, and among other things is highly regarded for its hardiness. In all the examples shown the outer leaves were of a reddish colour, rendering it distinct from all. From the utility standpoint it appears very desirable. It cooks splendidly and there is no waste core.

Perfection.—Habit singularly compact, with well-rounded head and a minimum of outside leaves, which enables a maximum production from the land. The cut specimens showed a variety of excellent heart. From Messrs. Sutton and Sons, Reading.

HIGHLY COMMENDED.

Sugarloaf, from Messrs. Sutton and Sons, is of distinctly conical form, and, because of it, cannot but be regarded as a sort of *multum in parvo*.

COMMENDED.

Tom Thumb Re-Selected.—From Messrs. Carter and Co., Raynes Park.

Drumhead Covent Garden Late.—From Messrs. Watkins and Simpson, Covent Garden.

Selected Drumhead.—From Messrs. Sutton and Sons. Awarded as an early market variety.

Perfection.—From Messrs. Hurst and Sons.

N.B.—The award is given to a strain, and where the trial gives evidence of the existence of several strains as in the case of Perfection, which receives an award of merit and is also commended, the award applies only to the strain indicated.

In every instance cut and uncut specimens were on view to demonstrate the hearting properties of the varieties, a like principle being adopted by the examining committee when making the awards.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

The Flower Garden.

Herbaceous Phloxes.—Among hardy border perennials these are unsurpassed for late summer and autumn flowering. They comprise a wide range of rich colours and vary in height from 1½ feet to 6 feet. The plants thrive in most garden soils which have been deeply dug and well manured. Readily and rapidly propagated by division of the clumps, the present is a good time to do this work. Phloxes flower well in full sun and on north borders which get ample light. Next to shaded borders, the least satisfactory position is a hot south border with a light sandy soil. A representative selection of the best sorts should include Frau Antonin Buchner and Tapis Blanc, white; Elizabeth Campbell and Mrs. Olivier, salmon pink; Selma, soft pink; Rijnstroom, rosy pink; George A. Ströhlein, orange scarlet, darker centre; Pantheon, cerise salmon; Cœur de Lion, rose; Lady Diana, crimson lake; Antonin Mercie, rosé lilac; and Eugénie Danzanvilliers, lilac blue, white centre.

Climbers.—The boisterous weather of the last few weeks has loosened the ties of numerous climbers on walls, fences, arbours and arches. In a few instances the growths may be shortened and some pruning done, but as a rule this is not a suitable time to prune flowering or evergreen climbers. The most satisfactory method of securing climbers to walls and fences is to have wires strained from end to end at equal distances to which they can be readily tied; failing these, nails and shreds or string are used, but this has the disadvantage of making holes in the wall and providing a harbour for insects.

The Kitchen Garden.

Cabbages.—The wet weather of late has caused the young plants to make more growth than is

ual at this season. Should hard frost ensue, it may cause losses through the growth being tender, and a larger number than usual may bolt in spring. To provide for possible losses, retain and encourage the development of the young plants still in the seed-beds. Hoeing between the plants will do good, pulling a little up round the stems.

Rhubarb.—When required for forcing, a sufficient quantity of roots are usually lifted early in December. A number can then be readily placed at intervals under the greenhouse staging in other suitable positions where there is sufficient warmth to incite growth. Outdoors, old barrels and boxes can be placed over the crowns, covering some of these with a mixture of strawy manure and leaves to bring them on in advance so that a succession may be obtained. Evidence points to a greater demand than usual for Rhubarb, and, in addition to a light crop of Apples in many parts at home this year, the imports are very restricted.

The Hardy Fruit Garden.

Apricots.—Assuming that attention was given to the disbudding and pinching of the growths in summer, there will not be much pruning to be done to Apricot trees. With the idea of keeping the trees well furnished with young fruiting wood, there will be a little of the old fruiting wood to cut out and some young shoots to tie in to take its place.

Sweet Cherries.—Unlike the Morello Cherries, the Sweet Cherries produce their fruits from the spurs, so that with these there will not be nearly so much tying in of the young shoots necessary. In fact, except for the leading shoots on young trees, pruning of Sweet Cherries is mostly done by pinching the shoots in summer, these now being simply shortened still further back on the spurs.

Plants Under Glass.

Chrysanthemums.—Remembering that a good beginning goes a long way towards ultimate success, it is necessary to look after the stools, from which cuttings are required, as soon as they are cut down. Leave at least a foot of the old stem, and stand the pots in a light, airy pit or heated frame. In some cases there may already be ample growths, the most forward of which can be removed with benefit to the remainder, to be retained for cuttings.

Gardenias.—In view of the fact that the propagating-cases are taxed to their utmost capacity early in the year, a start should be made now with convenient subjects. The deliciously fragrant Gardenia is one of these. Ample bottom-heat and a light, sandy compost are desirable. Cuttings rooted now will produce bushy young plants to flower in late summer and autumn. Though they may lack in quantity, the blooms on young plants of Gardenias are invariably larger than those on older plants.

Roses in Pots.—Hybrid Tea varieties now constitute the great majority of plants grown in pots for the greenhouse. Select among those well established in the pots a good batch for early flowering. Having pruned the bushes a little or much, according to the variety, examine the drainage in the bottom of the pots to see that it is in good order. Remove an inch or so of the surface soil and replace with a mixture of old decayed manure and fibrous loam. Place the pots in a cool house at first.

Calceolarias and Cinerarias.—Keep the plants in the frames close to the glass, if necessary by standing on inverted pots or a temporary stage. Only give sufficient heat or protect with mats to keep out frost, and ventilate freely on all favourable occasions. Fumigate at intervals to check the development of green fly. Give liquid manure; cow-manure, sheep-manure and soot water are suitable.

Kew. A. OSBORN.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Jerusalem Artichokes.—These should now be lifted and stored, selecting the largest for table use and the smaller ones for planting sets. They should be stored in clamps or pits, and covered with soil to keep them fresh and moist.

Onions.—Examine the Onions in the storeroom regularly, and remove any decaying bulbs. Use the largest and any thick-necked specimens first. Medium-sized, hard ripened bulbs keep best, and these should be reserved for spring use.

Potatoes.—Where early forcing is practised, some preparation should now be in progress for having a few tubers planted. These should have been placed in boxes some time ago to start. A fairly deep pit should be filled with a mixture of litter and leaves, thoroughly mixed and trodden firm, so that a considerable and lasting heat is generated from the fermentation. Over this place about 9 inches of light soil, and when the whole has been heated through, the tubers may be planted. It is advisable to cover the pits with mats on cold nights to retain as much of the heat as possible. Pits having a row of hot-water pipes as well as the heat from the mild hotbed are advisable for the earliest batches. Should only a few early tubers be required, these may be grown in large pots and treated as pot plants until ready for use.

The Flower Garden.

Collecting Leaves.—In this department the bulk of the routine work is over for a season, except for the cleaning up of fallen leaves or broken branches in the grounds, and the manuring and digging of vacant beds as soon as opportunity offers. Beech and Oak leaves form the best leaf-mould for potting purposes. These should be collected separately and stored in a heap, removing all twigs in the process, as these do not improve the quality of the mould. All other leaves should be collected and burned, or a portion may be mixed in the manure heap, unless, as often happens, the garden is already over-charged with leaf-mould.

Lawns and Walks.—During mild weather any alterations that have been arranged can be carried out in this department, lifting and relaying of turf being easily accomplished after so much moisture. Do not undertake any extensive lifting of turf at this season, or severe frost may set in and delay the work of relaying it for some months. The turf should, as far as possible, be relaid the same day as lifted. A heavy roller can then be used over it at various times throughout the winter. Remodelling of roads and walks or mending existing ones can also be conveniently undertaken at this season. The lawns and walks, being generally in close view of the house, should be kept regularly swept and rolled.

Fruit Under Glass.

Strawberries.—If ripe fruits are required from March onwards, a commencement should now be made to have some of the most forward plants placed in heat. Select those with the strongest single crowns, examine the drainage in case worms have rendered it faulty, and remove decayed leaves. It is also advisable before taking them indoors to lay the pots on their sides and give the leaves a good syringing with an insecticide. Do not give much heat for the first few weeks; the temperature can be raised considerably when the plants begin to push up their flower-spikes, and the syringe kept going regularly among the foliage. Weak liquid manure can also be given at this stage.

Bottling Grapes.—Grapes that are quite finished and required for spring use may now be cut from the Vines and placed in bottles, and if a suitable room is available the berries will keep much better than if left on the Vines. The bottles should be filled with fresh water in which a few chips of charcoal have been placed, and arranged on suitable racks. When cutting the bunches, a sufficient length of shoot should be left to reach the bottom of the bottle, so that there is no risk of the berries becoming shrivelled from want of water. Either end of the shoot may be placed in the water. The temperature of the room should be kept as equal as possible between 45° and 50°, using a little fire-heat and ventilation. Gros Colmar and Mrs. Pince keep for a considerable time in good condition, but none keeps so well as Lady Downe's. This variety may be kept in quite good condition for six months if the conditions are favourable.

THOMAS WILSON.
(Gardener to the Earl of Strathmore.)
Glamis Castle, N.B.

OBITUARY

HERBERT E. MOLYNEUX.

WITH great regret we have to record the death of Mr. Herbert E. Molyneux. One of the many disciples of the late Mr. Edward Mawley, he was an ardent Rose-lover and for many years took an active interest in the affairs of the National Rose Society. For four years, 1904-8, he discharged with conspicuous success the duties of hon. treasurer, besides which he was an untiring worker in connection with the publications issued by the society.

He was a charming writer on Rose subjects, and his articles on the newer Roses were always especially welcome, for he combined gifts of observation and critical appreciation with powers



THE LATE HERBERT E. MOLYNEUX.

of appropriate and attractive description. As is well known, he was a frequent contributor to the pages of THE GARDEN. Some years ago he collaborated with the Rev. F. Page-Roberts in a new edition of Foster-Melliar's "Book of the Rose," still a standard work for every amateur rosarian.

When he was living at Purley his enthusiasm was infectious, resulting in the inception and success of the Purley Rose and Horticultural Society, one of the most flourishing local societies of its kind. Latterly he had been residing at Southampton, where he died at the age of 48, on the 22nd ult. after a short illness leaving a widow and four children to mourn his loss.

A pleasant personality, a cheery and agreeable companion, he was an example of the indomitable spirit in a not too robust frame. He put up a great fight against physical weakness, obvious to his friends, never admitted by himself, and circumstances which might have daunted a less courageous mortal only seemed to bring out

qualities which endeared him to a large circle of friends, whose sympathy will go out in full measure to Mrs. Molyneux and the family in their bereavement.

E. J. H.

In a recent letter the Rev. Canon F. Page-Roberts refers to our late friend and contributor in terms which will be re-echoed by many readers: "Molyneux had the most extraordinary memory for Roses. His descriptions of colour and habit were so accurate, and his using of the English language so easy and clear. We shall miss his writings on the new Roses. He was an immense help to me when preparing a new edition of Foster-Melliar's 'Book of the Rose.'"

EDITORIAL NOTICES

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

ANSWERS

TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

BLUEBELLS AND FOXGLOVES IN LIME TREE DRIVE (Maida Vale).—Fifty year old Lime trees in a border undisturbed for that long time would long ago have so matted it with fibrous roots that your only chance of success would be to trench the soil at a safe distance from the boles of the trees, say, 8 feet, and, cutting away all the roots, fork out and burn them. Those left will, of course, quickly take advantage of the moved soil, but meanwhile the introduced plants would have been given a start. No other preparation would be needed. Nephrodium Filix-mas (Ferns), Evening Primroses, Solomon's Seal, Gaultheria Shallon, Butcher's Broom, common Flag Iris and such bulbous things as Snowdrops, Fritillaria Meleagris, Crown Imperials, any of the cheap Narcissus incomparabilis sold for naturalising, Liliun croceum, L. umbellatum and L. Martagon, with Dog's-tooth Violets, Winter Aconite and Lent Lily, could be grown with success. If the soil is fairly cool, Lily of the Valley could be freely introduced, also Crocus speciosus and Colchicums speciosum and C. s. album for autumn effect. By associating and in a measure carpeting the ground with the things first named or others akin, bareness at any season would be avoided. If the drive is of some extent and importance, you would be well advised to get a little outside assistance.

ROSE GARDEN.

A HEDGE OF HYBRID SWEET BRIARS (H. A. W.).—Penzance Briars or Hybrid Sweet Briars used as a hedge may be planted 2 feet apart. They ought to be at least 4 feet from the path, for, even if the branches are tied in, they are inclined to become rather wild when growing freely. In an exposed position it would be wise to erect a fence made up of three strands of strong wire, to which

the main branches could be secured. Some of the older wood could be cut out each year in spring, but the long young shoots ought not to be shortened. If the plants become overgrown at any time they may be cut down fairly low, but a season's flowers will be lost by so doing.

ROSE AIMEE VIBERT AS AN EVERGREEN CLIMBER (T. W.).—Few, if any, Roses retain their foliage so well as this fine old variety. Perhaps a more inferior variety is American Pillar. The foliage is superb, and in many districts will be retained well into the winter.

MISCELLANEOUS.

PLANTING A MIXED HEDGE (Maida Vale).—Mixed hedges are not always a success, owing to the different rates of growth of the subjects used. Wild Sloe could be mixed with Whitethorn, or common Privet could be used with either or both plants. It is probable that Pyracantha and Berberis Darwinii could be used together satisfactorily, though we have not seen them so used. Berberis stenophylla forms a good hedge when used alone, but if Blackberries were mixed with it the Berberis would probably be killed. Clematis Flammula, C. montana rubens, C. Vitalba, C. alpina and C. Jouiniana are all suitable for planting to grow over bushes or rough hedges. It is advisable to insert the plants a little distance from the hedge. Good Vines to plant in a similar position are Vitis Coignetiae, V. Labrusca and V. Engelmanni. Neither of these subjects requires annual pruning. It is advisable to dig good-sized holes and provide good soil in order that the plants may get a good start.

GRAPES REFUSING TO COLOUR AND GOING MOULDY (J. D.).—The appearance of crow's feet in the berries of which you speak is a sure indication of a low temperature being the cause of decay. The season has been averse to the ripening of Grapes in unheated vineries. Your remedy lies in lighter crops and the use of a little heat in the hot-water pipes in cold weather, with some air always on in summer while the weather is favourable, but not otherwise, as more than enough air finds its way under the lappets of the glass in bad weather.

BEETROOT RUNNING TO SEED (Torquay).—The reason is because they have been sown too early. Sow a fortnight or three weeks later. Carrots splitting.—This is generally due to some check in their growth by long drought, or that the ground they are growing in is too poor and not of sufficient depth. The Butter Beans of Normandy.—It is a question of growth more than of variety. In France their growth is specialised in, and good culture in rich soil is given; hence the large size of the Beans. Grown under similar conditions, they should be equally as large here. Seeds may be obtained from Messrs. Sutton and Sons, also other seed merchants. If you prefer French seeds, apply to Messrs. Vilmorin and Co., Seed Merchants, Paris.

THE CARE OF TENNIS LAWNS (M. C. B.).—Tennis lawns that have been badly worn should be renovated as soon as play ceases for the season. Remove the worn patches and make up with really good turf. Should the grass appear to be thin in places, but not really badly worn, prick the soil up between the grass roots with a fork and sow a little grass seed, covering it lightly with sandy soil and protecting it from birds. Where the grass is thin, a surface dressing of good soil, free from weed seeds, or farmyard manure will do good. This dressing should be applied in October or November and be well raked about on all favourable occasions until it disappears. A light dressing of bone-meal may be applied to any lawn with advantage at the present time, while, where it seems desirable that the grass should be thickened, a dressing of basic slag may be applied. Basic slag acts slowly, however, and the best results are not seen for eighteen months or so after application. On lawns where the grass is inclined to be coarse, it is a wise plan to apply a dressing of sea sand. Such a dressing encourages the finer-growing grasses. To destroy worms it is advisable to procure one of the various worm-killing preparations supplied by seedsmen, and apply it according to directions which usually accompany such preparations. It must, however, be understood that worms do a great deal of good to a lawn—although worm-casts are unsightly in autumn—for they aerate the ground and constantly bring new soil to the surface. They also draw into the earth leaves and other vegetable matter that may be lying about. Soil denuded of worms would soon be impoverished to a considerable extent; therefore in trying to destroy them it would not be wise to be too drastic.

VARIOUS QUESTIONS (Lancashire Learner).—Your question, "Should top-dressing be given to herbaceous borders in autumn?" is a trifle vague. If the borders are new, no top-dressing would be needed, though forking over after cutting down would be helpful. Older borders might each year receive a mulch of well-decayed stable manure in autumn, to be forked in in spring. Borders of more than four years old would repay replanting; many vigorous-growing subjects repay for it annually. Peat-moss litter absorbs stable liquid freely and retains it as a sponge does water. Hence if it contains much and is used fresh it is likely to injure roots of plants by contact. If put far enough away from the roots it is safe. Incorporated with a third of its bulk of soil and placed in a heap it would also be safe to use for kitchen garden or herbaceous borders. As a mulch for the latter in autumn it could be used fresh. Much depends on the amount of the urinal liquid it contains and which, of course, varies with circumstances. To "describe the right treatment of Strawberries throughout the year, also Plums, Pears, Peaches and Nectarines," would require a small volume, and is therefore beyond the scope of our "Answers to Correspondents." Such information is given regularly

in THE GARDEN in "Gardening of the Week," or may be had in fuller measure in "Gardening for Beginners," 13s. post free, which may be had from these offices. "The Fruit Garden," by F. W. Harvey, would also help you.

NAMES OF FRUIT.—Cliffe.—Apple Hoary Morning — G. B.—Wormsley Pippin, a very rare variety now, and you may have a difficulty in procuring trees.

SOCIETIES

WARGRAVE AND DISTRICT GARDENERS' ASSOCIATION.

ON Wednesday evening, November 22, Mr. H. Coleby, hon. secretary of the association, gave an interesting lecture on "Some Insect Plant Pests." It was illustrated by a number of coloured diagrams, so that a good idea of the insects could be obtained. The life history of each pest was given, with the remedy for its eradication. The following were those described, after an outline of insect life had been given: The lackey moth, the ermine moth, Gooseberry and Currant sawfly, the Asparagus beetle, the Black Currant mite, the Raspberry moth, millepedes and centipedes, and scale insects.

A good discussion followed and a vote of thanks was given to the lecturer, who promised to continue the subject at a future meeting. A cultural certificate of merit was awarded Mr. R. Doe, gardener to Sir Charles Hendry, M.P., for a beautiful group of Begonia Gloire de Lorraine and Dracenas.

Royal Horticultural Society's Meetings.

The future fortnightly meetings of the Royal Horticultural Society will close at 4.30 p.m., instead of 5 p.m. as announced in the "Book of Arrangements" and on Fellows' tickets, to enable compliance with the Lighting Regulations.

Royal Horticultural Society's Daffodil Show Schedule.

The schedule of the Royal Horticultural Society's Daffodil Show to be held on April 17, 1917, is now ready and can be obtained by a letter of application, accompanied by an addressed-foolscap envelope stamped with a penny stamp, to the Secretary, Royal Horticultural Society, Vincent Square, Westminster, London, S.W.

The Perpetual-Flowering Carnation Society.

May I once again draw attention to the fact that the arrangements for the above society's twenty-first show are well in hand, and it needs but the assistance of a few enthusiastic Carnation-growers to ensure a success? Many of our members are now busy combating the Hun, and therefore Carnations with them are at present out of the question. This opens up opportunities for others who from faint heart or other causes have hitherto held off. My wife, in my absence, is prepared to book all the entries that may come in; and the show itself will be as ably managed as formerly. The Perpetual-flowering Carnation Society has just completed a remarkably successful year, and, assuming I may not be able to attend the show, I should like to learn that the twenty-first exhibition compared favourably with those of the past.—T. A. WESTON (Private, A.O.C.).

PUBLICATION RECEIVED.

"Tree Wounds and Diseases," by A. D. Webster. Published by Williams and Norgate, 14, Henrietta Street, Covent Garden; price 7s. 6d.

The War Office notifies that from now onward all papers posted to any neutral European country will be stopped, except those sent by publishers and newsagents who have obtained special permission from the War Office. Such permission has been granted to THE GARDEN, and subscribers who send to friends in Denmark, Holland, Norway, Sweden, Switzerland, Spain, Portugal, Greece, and Roumania should order copies to be despatched by the Publisher from 20, Tavistock Street, Covent Garden, W.C.

** The Yearly Subscription to THE GARDEN is: Inland 6s. 6d.; Foreign, 8s. 9d.

THE GARDEN.

No. 2351.—VOL. LXXX.

DECEMBER 9, 1916.

NOTES OF THE WEEK

THE Government are at last making a bold stroke by way of increasing the home-grown food supply. Lord Crawford stated last week that the Board of Agriculture propose to give powers to enable local authorities to enter on land unoccupied and not paying rates, and German prisoners are to be employed in agricultural work. Instructions are being issued under the Defence of the Realm Act making the acquisition of small holdings and market gardens easier, and selected portions of common land are to be used for the production of food. Readers who are wanting allotments in their own particular neighbourhood and who find difficulty in obtaining permission to cultivate idle land should write, stating their case, to the Secretary of the Vacant Land Cultivation Society, 14, Buckingham Street, Strand, London, W.C.

A Wisley Hero.—It is gratifying to learn that Lieutenant J. C. Powell, a Wisley student, has been awarded the Military Cross for devotion to duty. At the outbreak of war Lieutenant Powell gave up his studies to join the Somersetshire Yeomanry. From the rank of private he rose to be corporal, and returned from the trenches about eighteen months ago to take up his commission in the Royal Field Artillery. Our hero lies in Guy's Hospital suffering from wounds received in the Somme, and we wish him a speedy and complete recovery.

Fresh Vegetables Needed at the Front.—“For sixteen months,” writes one of our gallant readers, “we have been on this front without a proper rest, and we have been in all the actions with our Division since July 1st, but in all probability we shall be out of the trenches on Christmas Day and we hope to have a good time.” The writer concludes by appealing to readers of *THE GARDEN* for fresh vegetables for his regiment, and we are sure that those who can spare them will gladly respond to the appeal. Vegetables should be sent to the O.C., D Company, 8th Royal Sussex Pioneers, via the Military Forwarding Officer, Southampton. We trust that this short note will be the means of providing many a little hamper of vegetables for those to whom we owe so much.

Municipal Rose Garden at Croydon.—In order to encourage and promote Rose cultivation, the committee of the Croydon Horticultural Society approached the Croydon Corporation for permission to maintain a Rose garden in the Park Hill Recreation Ground. The Council readily sanctioned the proposal, and expressed their appreciation and thanks to the society. The committee are gratified at the success which has attended their efforts. Although not yet

completed, it is already a delightful spot to visit, and has been admired and appreciated by many thousands of visitors.

Berberis japonica hyemalis.—This fragrant shrub, formerly known by the varietal name of Bealei, is now in full flower, and it is one of the great treasures of the garden in December. The long racemes of pale yellow flowers are borne with a decided horizontal inclination and not upright as in the accompanying illustration, while their fragrance is reminiscent of Winter Sweet. The racemes of the typical species are sub-erect, and the flowers, although similar in colour, have little or no perfume.



FRAGRANT FLOWERS OF BERBERIS
JAPONICA HYEMALIS.

Massonia jasminiflora.—This interesting species, which has been figured in the *Botanical Magazine*, was shown by Mr. E. A. Bowles at a recent meeting of the Scientific Committee of the Royal Horticultural Society. It grows on the veldt at the Cape, whence the bulb from which this plant was derived came. The white flowers, which rise but little above the deep green foliage, are very sweetly scented. It had flowered in a garden at Waltham Cross.

Arenaria gothica.—For the past few months this charming Sandwort has been flowering profusely in the rock garden at Wisley, and at the present time its pretty white flowers attract more than ordinary attention. It is neat and compact in growth and at first sight it may be easily mistaken for *Houstonia cærulea*. Glancing through the catalogues of many leading dealers in rock plants we have failed to find mention of this species, although it is more than possible that it possesses a synonym for the genus *Arenaria*, following the “Kew Index” disposition, includes the genera *Alsine*, *Cherlaria* and *Mœhringa*, while species of *Stellaria* have been incorporated with this genus by some botanists.

Chrysanthemum Mrs. G. Rundle.—It was reminiscent of bygone days to see vases of the varieties Mrs. George Rundle and Mr. George Glenn shown in good condition at the National Chrysanthemum Society's Show held at the Royal Horticultural Hall on November 9 and 10. Time was when these varieties used to figure in practically every stand of incurved blooms, their chaste appearance and symmetrical shape causing them to stand out as universal favourites. They, however, gradually fell away as exhibition flowers owing to their comparatively small size, though in beauty they are still unsurpassed. The variety Mrs. George Rundle was, according to the catalogue of the National Chrysanthemum Society, sent out in 1868. The flowers of this are pure white, and the variety Mr. George Glenn originated therefrom as a pale primrose yellow sport some time after.

Royal Horticultural Society's Shows.—The show and meeting for December 19 has been withdrawn. Fortnightly meetings have been arranged in 1917 for January 16 and 30 and February 13. Fellows of the society are asked to enter them in their 1916 tickets, which admit on these dates. Further 1917 fixtures will appear in the “Book of Arrangements” to be issued in January as usual.

*** Owing to the shortage of paper, readers who have not already done so are asked to order *THE GARDEN* to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

A Letter from a Naturalist at the Front.

Of course, it is too late for much botany, and I have not seen any flowers—with the exception of a Thistle I cannot place definitely—which I have not found in England. But as regards birds, the most noticeable thing here is the number of the crow family, of which seven representatives are common, being the carrion and hooded crows, rooks, jackdaws, magpies, jays and starlings, the latter being the least common of the lot. The gold-crested wren is also much in evidence in the woods, and is generally far more plentiful than the common English wren. I have seen only one or two robins, one kite, a few woodcock and a single jack snipe.—195941 PRIVATE R. O. CLEMENT, S.B.R.E. Depot France.

Novel Potato Production.

I have just read the further correspondence on this subject in THE GARDEN of November 18, including the extract from the Transactions of the Royal Horticultural Society, Vol. I., 1805-12. As the late Mr. David Thomson's method—which I have successfully followed—differed somewhat from that recorded there, allow me to point out the differences. I placed the tubers in the boxes in the first week of August instead of at the end of September, for use about Christmas. My layers of soil were only 2 inches deep instead of 6 inches, and I placed the tubers 2 inches apart instead of close to each other.—CHARLES COMFORT.

Rose Cherry Page (H.T.).

October Roses have been grand and even in November lovely blooms were to be had here and there. The above-named variety was particularly beautiful in November, the flowers, taking on a most remarkable glow, simply impossible to describe. Readers who like such a Rose as Dorothy Page-Roberts will find Cherry Page a worthy companion to it, the strong, upstanding growths bearing fine clusters, the centre flower opening first, followed by exquisite buds. In all my large collection there is no variety of such a beautiful shade of colour as Cherry Page, a rich, glowing cerise, with a distinct golden hue pervading it. To many the large, loose, open flowers are disappointing, and in summer-time they droop somewhat, but in November the blossoms stand up erect and last for a long time on the plant.—DANECROFT.

The Folly of Growing Crab Apples.—One cannot too often repeat the statement that it is folly to grow sour, ill-conditioned Crabs when it is possible to produce really good, wholesome Apples. Some of the best dietetic experts

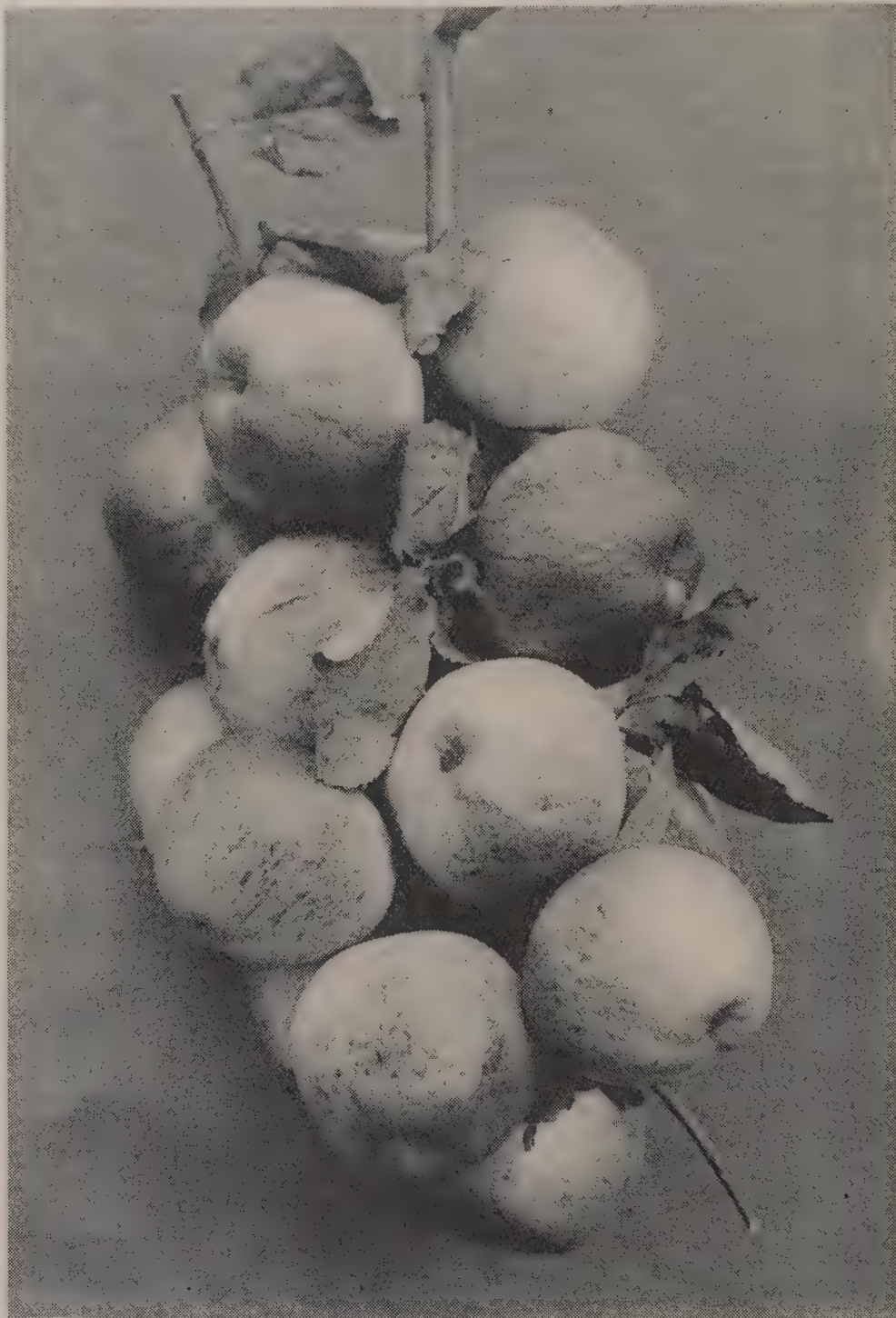
condemn manufactured sugar as unwholesome. Now, we may not object to a little of it, but the quantities that have to be added to these Crabs at once condemn their use as a rational food. People tell us that the blacks who chew sugarcane extensively are very healthy, but in chewing the cane they get all the juice, which contains many elements absent from table sugar. We may be quite sure that it is best to get our sugar as it is naturally combined in first-class fruit. Again, where is the economy in buying or growing fruit that one cannot eat without first buying

fruits are so clean, of good size, and keep sound till May. It is a cooking variety.—G. G.

Apple Schoolmaster.—In these gardens are a number of trees of this excellent Apple, which, I understand, were planted by the late Robert Fenn, the renowned raiser of several good varieties of Potatoes. Mr. Fenn was evidently as good a judge of an Apple as of a Potato, for on our soil this Apple is a most prolific cropper. During the past three seasons we have had very heavy crops from these trees. This season the fruit is rather small, owing to drought and a severe attack of aphids

in the spring. The fruit picked from our trees last season was of exceptional quality, and kept well until the end of March. Although often described as a cooking Apple, we find it also a favourite for dessert, being juicy, moderately acid and well flavoured. Our soil is poor, a thin gravelly loam, subsoil clay. The trees make moderate growth on the Crab stock, and form excellent standards. During Mr. Fenn's possession this Apple was known by the name of Pay the Rent, a name which speaks for itself.—C. R., Reading.

Profitable Apples.—I have been interested in the article and subsequent correspondence that has appeared in your columns during the last few weeks. Alas! how difficult it is to make a selection from a multiplicity of varieties. If I were asked to name the heaviest cropping cooking Apple, I should say Emperor Alexander, at the same time knowing that probably very few other growers would agree with me. The accompanying illustration of a cluster of fourteen fruits of this variety grown in a Watford garden is evidence of its great cropping propensities, but for the guidance of others let me say that the picture illustrates how *not* to crop a tree. It is safe to predict that the tree would soon be crippled if other branches were allowed to crop like this one. When visiting a small fruit garden in the neighbourhood of Streatham recently, I was informed that Gascoyne's Scarlet was far and away the heaviest and most consistent cropper. This I know is contrary to the experience of others, but so much depends on soil and situation. The wise fruit-grower will refrain from putting all his eggs in one basket, at



A CLUSTER OF FOURTEEN FRUITS ON APPLE EMPEROR ALEXANDER.

an equal weight of sugar to enable us to tolerate it? As I have said before, why not grow our own sugar in the fruit itself? I am quite sure that natural methods are the best.—W. J. FARMER.

Apples in a London Garden.—The recent reference to Apple Pott's Seedling will undoubtedly be the means of deciding numerous readers to plant more Apple trees, even in small town gardens. It is fruitful when well looked after, and not difficult to manage. I have seen Apple King Edward VII. in fine condition this year. The habit of the tree is all that one could desire, and the

least until he has found out from experience which varieties are best adapted to the locality.—SPARTAN.

Profit on a 10-Rod Allotment.—From a recent conversation with some of my allotment holders, the general opinion is that at present prices a 10-rod allotment should show a profit of about £6. One member planted his 10 rods with Potatoes at a cost of 14s. for seed, and rent 7s. 6d., and produced 18 bushels, which at 1½d. per pound comes to £6 15s. He reckons that the greenstuff he will get off will be worth about 30s., and he will have to put in manure to the value of 20s., leaving a balance of £6 3s. 6d. Of course, there

is a difference in the amount of work done by the individual holder, and his knowledge of gardening, and a man with little knowledge and little industry might not get half this quantity; also, if manuring is neglected, the return would show a very considerable decrease in three years.—J. A. MARSHALL, *Normandie, Gloucester Road, Kingston Hill.*

Schizostylis coccinea in the Open.—This is a most useful thing in a suitable position. At the foot of a wall facing south it has up till now been giving me a good supply of most useful flowers, so welcome at this season. The flowers continue to open in water like *Gladiolus*.—S. W., *Bramley, Surrey.*

Christmas Greeting Cards.—The Ladies' Committee of the Royal Horticultural Society's War Horticultural Relief Fund are issuing cards of greeting for Christmas and the New Year in aid of the society's fund for reinstating horticulture in the countries of our Allies, where gardens and nurseries have suffered such absolute destruction in the war. Messrs. Raphael Tuck have been consulted, and two series (six different cards in each series) of garden cards have been selected. The cards are being sold in half-dozens of six different and really beautiful reproductions in colours of country garden scenes, the prices being 3s. for either series, or 5s. for the two series. A specimen card will be sent on receipt of seven penny stamps. Orders should be sent to the Secretary of the Royal Horticultural Society, Vincent Square, Westminster, London, S.W. A Fellow of the society has most kindly offered to add to the fund the sum of £1,000 if, and when, a further £9,000 has been gained to the fund. Therefore, by the purchase of these Christmas and New Year cards, friends of the society will not only be securing a very attractive form of greeting, but will, at the same time, be assisting in the reinstatement of our Allies' gardens. It is hoped that all Fellows will give the fund a little support in this way.

Profitable Apples to Plant.—The article bearing on this subject by Mr. J. Gardner in the issue of *THE GARDEN* for November 18 should prove of very great value to intending planters of Apples in making a selection of varieties to grow. These few remarks are not put forward as a carping criticism of the varieties he mentions, but rather as a supplementary list. I have, indeed, no serious fault to find with any of the culinary varieties in Mr. Gardner's list; my object is to point out his omission of what I consider three grand Apples, namely, Lord Derby, Peasgood's Nonsuch and Annie Elizabeth. The merits of these three varieties are much too well known to need any lengthy championship, and they would, I honestly believe, by popular verdict always secure a leading place in a select list of culinary Apples. The dessert varieties in Mr. Gardner's list are all well tried and popular, but I would like to put in a word as to the merits of Benoni and Lady Sudeley as early maturing varieties. In these gardens they both crop regularly and well, and are much appreciated at table. On the other hand, Langley Pippin, one of Mr. Gardner's selections for early use, does very poorly here. Of course, local conditions may have much to do with this, and that is where the difficulty always arises in giving lists of desirable varieties to plant, for those that flourish exceedingly in one locality will sometimes behave in a very different manner in another.—F. W. MILLS, *Ware Park Gardens, Ware, Herts.*

FOR THE CONSIDERATION OF THE CURIOUS

BY THE REV. JOSEPH JACOB.

NO one knows better than an editor how profoundly true are Kipling's famous words, "The Glory of the Garden lies in more than meets the eye" and "The Glory of the Garden occupieth all who come." No one knows better than the wielder of the great blue pencil how hard it is to cater for the hundred-and-one wishes and wants of the many and divers spirits that the octopean embrace of Old Mother Horticulture gathers to herself. There are those who "are hardly fit to trust with anything that grows," and there are Alexanders who have the care of a Holford's Orchids. There are Dean Hole's humble friends, the Nottingham Rose growers, who could show Teas and Hybrid Perpetuals in supreme beauty on an Easter Monday; and there is the great Diocletian,

know! How glad I would be to pass on what little I do know, for, as our local proverb says, "If one can't help many much, many can help one."

Let me give samples of the questions that might be asked:

Horticulturally, what is a mount? (that is, William Lawson's one, not John Mytton's). Horticulturally, what is a "crinoline"? Why should gardeners always be spoken of as the blue aproned fraternity? (Surely there must be some reason beyond the obvious one akin to the wearing of a white hat by a miller.) How can we account for vineyards in Britain as practical politics in bygone ages? Whence come these lines!

"So come all jovial gardeners, let's merry merry be,

We'll sing and dance, we've all a chance, but the London is for me"?

Can anyone throw any light on the history of Stephen Blake, who published "The Compleat Gardener's Practice" in 1664? Is there any reliable information about the *Fraisier grimpant*



ONE OF THE CHRISTMAS GREETING CARDS IN AID OF THE WAR HORTICULTURAL RELIEF FUND.

more at home and happier as a gardener in his garden at Spalato than ever he was as Emperor in imperial Rome.

"If I, my Friends (said he) should to you show
All the delights, which in these Gardens grow;
'Tis likelier much, that you should with me
stay,
Than 'tis that you should carry me away."

—COWLEY.

Let me, Mr. Editor, put in a plea, then, for those whose special leaning is towards the literary and the historical; and allow me to suggest a monthly column of *THE GARDEN* being set aside as a kind of spiritualistic medium whereby, à la "Notes and Queries," kindred souls may communicate with each other to their mutual benefit, and perhaps not without considerable interest to readers in general. [The suggestion is most welcome, and we shall be pleased to open an occasional column of "Notes and Queries" on these lines.—ED.] How many things I would like to

(Climbing Strawberry), or the *Chou-mange-tout*, *Rave en fleurs de Bruxelles*? Or, what did that old globe-trotter John Maundeville get hold of when he described a "Fruyt as thoughe it weren gowrdes, and whan thei ben rype men kутten hem a to and fynden with inne a lytlyle Best in Flessche, in Bon and Blode as though it were a lytlyle Lamb with outen Wolle," and say "Of that Frut I have eten"?

I hope, Mr. Editor, whatever the seventeenth century appellation of "curious" meant when used as a synonym for a good gardener by the writers of those distant times, it is not in its more modern meaning a very inappropriate adjective if applied to the keenest among us to-day; and, if I am right, although curiosity did kill the cat, it will keep alive the column I now suggest.

"As some delighte moste to beholde
Eche newe devyse and guyse,
So some in workes of fathers olde
Their studies exercise."

—JOHN HALLE (1565).

NOTES FROM MYDDELTON HOUSE GARDEN

By E. A. BOWLES, M.A., F.L.S.

THERE are but few plants that can be relied upon to produce flowers annually in the open air during the latter half of November here in this cold eastern county; therefore any that possess enough beauty of form or colour to please the eye are worth noting and growing with care.

down like velvet. My plant trails along a stone balustrade by steps leading to the pond, and grows in a starvation corner, robbed by roots of large trees, and too near the gravel path for the supply of much in the way of a mulch. In normal summers the plant dries up and loses its leaves by August, but bursts into fresh life soon after



CLEMATIS CIRRHOSA.

(From a drawing

by E. A. Bowles.)

A little Clematis is especially attractive just now, and has always been so in the dark days of the end of the year. ever since it grew to flowering age, so I have gathered a spray or two to draw and praise. Its graceful outline you can guess at from my little sketch; its colouring I must describe, for its chief charm consists of the peculiar soft shade of emerald green of its unopened buds that contrasts delightfully with the dark bronzy green of its variously shaped leaves. The open flowers are of a delicate cream colour shaded with palest green. The whole outer surface of the buds, and all but a narrow marginal band of the sepals of open flowers, is covered by a fine silky

the coming of the autumn rains and makes a pleasing bit of green veiling throughout the winter, and generally bears flowers from November to January.

Besides possessing all these graces it appears to be a most interesting subject for botanical

study, as much a *multum in parvo* as Jerome's hero who read a book on the diseases flesh is heir to, until he felt he had them all and would be of greater use to a medical student than a whole hospital. I bought it as *Clematis balearica*, and knew that botanists differed as to the specific or varietal status of the name; but until I turned to my books to-day to try to clear up the matter I had no idea any one plant could vary so much and in such interesting ways. I am always grateful to a plant that takes me to books giving good figures and descriptions, and I have especially enjoyed the hunt for so many of the beautiful old books, including the finest of all, Sibthorpe's "Flora Græca," contain figures of one or other of its forms. I have had ten figures lying on the table before me from my own books, but I had to consult Sibthorpe's at the Lindley Library, where there is a superb copy that is one of our proudest possessions, and that all Fellows of the Royal Horticultural Society who appreciate a fine book should find an opportunity of seeing. Now I will try to give a short account of the points of interest of the plant. This winter-flowering *Clematis* grows in Southern Europe from Portugal to Greece, and is about as variable, both in flower and leaf, as any one plant can be. As it is a conspicuous and beautiful plant in its native wilds, clothing trees, rocks or walls with its growth, it has attracted a good deal of attention and as may be imagined from its wide range of distribution and various forms, it has had many names given to the local varieties.

The accepted view is that all are but geographical forms of the *C. cirrhosa* of Linnaeus, for he included under that name Tournefort's *C. peregrina*, whose leaves were either simple or divided into three leaflets. The name *cirrhosa* brings out one of the interesting points. It should signify that the plant possessed tendrils, generally defined as thread-shaped leafless bodies capable of coiling spirally and used for climbing. Now, in the genus *Clematis* the leaves are not changed into tendrils, but the petioles, or leaf-stalks, of some of the leaves are used in a similar way, and when they come into contact with a solid body take a single turn round it and then thicken and become woody. In my plant it seems to be only the pairs of opposite leaves on a young shoot that do this twining business, and the axillary shoots only bear leaves with short and straight petioles. After the leaves have fallen and only the lower portions of the coiled woody petioles are left, they look so much like actual tendrils that many authors have described them as such. The name *cirrhosa* is attached to most of the figures representing the forms with more or less entire leaves and greenish, unspotted flowers; while those with larger, yellowish flowers and much-divided leaves generally appear under the name of *calycina*. Solander described the cut-leaved form under this name in Aiton's "Hortus Kewensis," and it calls attention to another interesting point. It implies that this *Clematis* above all others has a remarkable calyx, but when we compare it with the great purple sepals of *C. Jackmanii*, for instance, these small greenish bells seem insignificant. In *Clematis* the calyx and not the corolla furnishes the brightly coloured portion of the flower, the petals being almost always wanting. They may be found, however, in the rare *C. Sieboldii* as a bright purple tuft in the centre of the large white sepals, but it is thought to be a garden form of *C. florida*, in which the anthers have become petaloid. The Alpine

Clematis provides us with real petals, strap-shaped and white, coming between the four blue sepals and the anthers. It is because it has these well-formed petals that it has been considered a separate genus and called *Atragene alpina*, but it is nowadays reckoned a true *Clematis*.

Then, to return to *C. calycina*, we find that it got this name not on account of its real calyx, but because the bracts on its flower-stalk are in many of its forms joined to form a funnel-shaped involucre that looks very much like a calyx. In some forms, as in the one I have sketched, this little cup is just below the sepals; but in others it may be some way below them, and there is then what looks like a perianth tube between the two, of the same colour as the sepals. In the form figured in the *Botanical Magazine* (t. 959) these calyx-like bracts are developed into two large leaf-like appendages showing their true nature, while in the form *pedicellata* (t. 21 of Vol. XXX. of the *Botanical Register*) they are so small and so far away from the sepals that they look much more like bracts than a calyx.

I have a large mass of the cut-leaved form climbing far up into a tall Holly, but it never produces flowers before early spring, and often continues flowering till summer arrives. The crimson spots inside its flowers add greatly to its beauty, but I have more affection for the smaller green flowers that appear so regularly in early winter. Wilkomm, in his fine book "Illustrationes Floræ Hispaniæ," figures a most beautiful form with entire leaves and very brilliant red spots in the flowers. He calls it *C. cirrhosa* var. *purpurascens*, and it would be a great acquisition to our gardens if it is still common, as stated, in Majorca. He reckons that *balearica* is the mountain form, and has the leaves more and more cut according to the increase in altitude and aridity of its position.

Lindley's division of the varieties of *cirrhosa*, given in the *Botanical Register*, seems to me the best. It is to this effect:

1. *Cirrhosa*.—Leaves broad, entire or serrated. Involucre large immediately below flower.
2. *Semitriloba* or *polymorpha*.—Leaves broad, generally three-lobed, never entire. Involucre immediately below flower.
3. *Pedicellata*.—Leaves broad, often entire. Involucre small at considerable distance from flower.
4. *Calycina* or *balearica*.—Leaves narrow, deeply cut. Involucre immediately below flower.

It would be interesting to know how many of these forms are to be found in English gardens, and one reason why I have gone into the question so fully is that I hope those who grow them will let us know which they have and which are the most ornamental.

The three outstanding Crocuses of the day in the rock garden are all white ones, and their sturdy purity contrasts wondrously with the wintry aspect of their surroundings and the dead stems and leaves of *Campanulas* and other small herbs. *C. marathonsius* is the best of them; in fact, about the finest white *Crocus* there is. Large, of good substance and with a rich orange throat and striking scarlet stigmata, it leaves nothing to be desired. *C. caspius* is a smaller edition of it, more cup-shaped and graceful in outline, but fails in the stigmata, which are narrow and not bright enough in their shade of yellow. The last is *ochroleucus*, a leafless, narrow-flowered species that looks too frail to battle with wintry days, yet always manages to live

through them and open out when a sunny hour comes. There are two forms of it, one very thin and wan, with white stigmata and so little orange in the throat that the first part of its name is not justified thereby. The better form was collected by Egger in Syria about ten years ago, and has a very bright touch of orange in both throat and stigmata, but even this does not come up to the beauty of the plant in Maw's plate. He so seldom flattered a *Crocus* that I feel sure there is yet, somewhere in Syria, a finer form of *ochroleucus* waiting to be introduced.

NOTES FROM THE RIVIERA

By EDWARD H. WOODALL.

CORONILLAS.

Coronilla glauca is so well known and so commonly grown that there is no need to say anything about it; but there are two others closely allied that are even better worth growing and, generally speaking, very little known.

C. Valentina is a particularly useful and cheerful winter-flowering shrub on the Riviera, as it flowers all through the winter, beginning in early November and reaching its fullest beauty in the month of February. It is more slender in growth than *C. glauca* and makes long shoots that bend down with the weight of the mass of flowers. Its foliage is bright apple green and quite distinct. While perfectly hardy on a dry bank, whether in sun or shade, it is a trifle less hardy than *C. glauca*. It seeds itself so readily that it is well to pull up the older bushes that have grown lanky, to make room for the young ones. *C. glauca*, on the other hand, does not naturalise itself in the same way. In the end of February, when *C. Valentina* is covered with seed-pods, it is necessary, if you wish to keep the older bushes in health, to cut it back freely and spare it the exhaustion of excessive seed-bearing, but that is all the attention it really needs.

C. coronata begins to flower in March and is the most powerfully scented of the three. This is in some ways the finest and most vigorous of all. Unlike *C. glauca*, whose habit is rather close and needs staking when in full flower, *C. coronata* makes a bold and vigorous growth, quite stiff and sturdy in stem, and with rather solid deep green leaves. It hybridises freely with *C. Valentina* when they happen to coincide in their flowering period, while I have never noticed traces of variation in *C. glauca* seedlings. *C. coronata* makes by far the finest bush of the three; I have seen it 7 feet or more in height, but then it is apt to get overweighted with its flowers after heavy spring storms of rain. On a warm April day or towards the end of March the whole air is filled with the powerful scent of this plant, which delights in the semi-shelter of an open wood in this climate, but it is much hardier and more robust than *C. glauca* and should survive ordinary seasons in most English gardens, where, of course, it will not flower till May or June, being the last of the trio in time of flowering. To sum up the

comparative merits of the three, I should say that *C. Valentina* is the best pot plant, as it flowers so freely all through the winter; and as it stands pruning so well, its rather lanky growth is no objection. Its bright green leaves and stems are always attractive, but it has little or no scent unless it has a touch of *C. coronata* in its parentage. *C. glauca* may speak for itself, but in any case it is the least charming of the set. *C. coronata* is much the finest shrub for outdoors or for a big pot. It would not be satisfactory in a stunted and starved condition. Its bold habit, however, and powerful perfume make it very desirable for corridors or big cold houses, and I feel sure that in the South of England it is a better shrub for outdoor gardening than the better-known *C. glauca*. I hope someone will report on its behaviour in England.

[*Coronilla glauca* is hardier than is generally supposed. The accompanying illustration shows a plant on the south front of Theberton Hall in



CORONILLA GLAUCA IN A SUFFOLK GARDEN.

Suffolk and not far from the East Coast. The plant is about 7 feet high and 6 feet wide. It usually commences to bloom in November and continues flowering all through the winter.—Ed.]

We have had a five days' storm of rain and wind since our glorious Eté de St. Martin, and fine things like *Dahlia imperialis* and *Salvia frutescens* are much spoilt; but a few days' sunshine like that of to-day will soon bring out new things, as the rains are always welcome in fair quantity at this season. The last few nights have been quite cold—down to 40°—and it has brought out some quite good Christmas Roses (*Helleborus maximus*, of course), a thing I have never achieved before, and it so happens they have as background a patch of *Colocasia* or *Caladium esculentum*, with its bold leafage. They both require a shady and moist situation, which I can give them in my valley near the spring there. I had never dreamt of such a combination, but it is remarkably good.

GARDENS OF TO-DAY: LOGAN, WIGTOWNSHIRE

By S. ARNOTT.

THE county of Wigtown is highly favourable to gardening, and the shire includes within its bounds some of the most interesting and delightful Scottish gardens. It is only necessary to mention Monreith, Sir Herbert Maxwell's charming place; Corsewall, that of Mr. D. Carrick-Buchanan; and that of Mr. J. A. Wallace at Lochryan, to bring this home to readers of THE GARDEN.

Second to none in point of beauty and interest is Logan, the property of Mr. Kenneth M'Douall, the descendant of a long line of members of the family who have done much to develop the beauties of the estate. In the most southerly parish of Scotland—Kirkmaiden—and not far from the Mull of Galloway, Logan possesses a mild and equable climate. The absence of natural shelter from the fierce gales which sweep from the Irish Sea is neutralised by the wooded character of the property and by skilful advantage being taken of every suitable feature. The mansion itself, a stately pile, would well repay detailed notice, while it is filled with many treasures in the way of pictures and many other articles of vertu. Trophies of the chase also show the activities of the two brothers, who, with Mrs. M'Douall, their mother, the châtelaine, are responsible for the charms of Logan. Mr. Kenneth M'Douall is himself a keen plant lover, a taste inherited from Mrs. M'Douall, to whom, it is no secret, is due much of the beauty of this Eden-like garden.

The grounds at Logan are of the most delightful kind, garden and glade, border, rock garden, shrubbery and plantation blending into each other, creating fresh surprises and new beauties at almost every turn. Among the notable things at Logan are the fine plants of *Cordyline australis*, established here for years and annually increasing in effect. There are many plants at Logan, and these flower and ripen seeds freely. Associated with a group of these is an uncommon thing in the open in Scottish gardens—*Dicksonia antarctica*.

Probably the finest plant of *Abutilon vitifolium* in the open in Scotland is that at Logan. It is of great size, and is most beautiful when in bloom with its hundreds of drooping lavender flowers. Logan is also one of the few Scottish gardens in which the Chatham Island Forget-me-not, *Myosotidium nobile*, is to be met with in the open in a really happy condition. It is given the shelter of a little straw in winter, but is otherwise unprotected, and annually shows above its handsome shiny leaves its fine blue flowers. The white variety is also grown.

Roses abound, and include the choicest of the race in the different sections. The Queen of Flowers seems thoroughly happy at Logan and is appreciated as her regal position would warrant, both in the form of dwarf and climbing varieties.

Then the queenly Lily is also fully represented, and Logan is noted for this flower, especially for *L. auratum*, which is splendidly grown and shows its beauty in perfection in the congenial soil and climatic conditions.

The climate and surroundings would point to Logan being a favourable venue for the cultivation of the Himalayan *Rhododendrons*, and within a



CORDYLINE AUSTRALIS, TWENTY FEET HIGH, AND DICKSONIA ANTARCTICA AT LOGAN, WIGTOWNSHIRE.

few years many of these have been planted. On the occasion of my visit they were looking very happy, indicating that they would prove in a few years equal to the other attractions of this garden.

A delightful scene is afforded by a formal Water Lily pond, so placed as to be in entire consonance with the spirit of the place—not an easy thing to do. When I visited this paradise the day was of the most brilliant kind, and the fine collection of the best *Nymphæas* raised by M. Latour-Marliac and others was in full bloom and literally glowing in the sunshine, making a picture which is indelibly impressed upon my memory, so exquisitely beautiful was it.

The rock garden, formed on natural rock, has been largely developed, and contains many interesting and beautiful plants. Among these is *Roscoea cautioides*; while the mild climate and the shelter are evidently suiting the *Cistuses* and *Helianthemums*, with many other flowers beloved of the enthusiast in rock gardening.

There is a glorious bit of *Romneya Coulteri* 10 feet to 12 feet high. It is a true delight against and over a wall, and marvellously fine with its crinkled white blooms, each adorned by the golden stamens.

Phormiums abound in Wigtownshire, and Logan is no exception in possessing noble specimens of *P. tenax*. Very fine also are the big plants of the Variegated New Zealand Flax when in flower, and towering far above those who stand beside them. Then *Exogonum purga*, the Jalap Plant, a subject not too often met with, gives its handsome lilac rose flowers in profusion, and *Eupatorium Weinmannianum* also flowers to perfection. Another uncommon plant in the open which succeeds at Logan is *Brugmansia* or *Datura sanguinea*, which was in great beauty as late as the middle of October.

The attractions of this truly wonderful Scottish garden are not confined to uncommon subjects, however, and all the other flowers—and these are many—cultivated at Logan are admirably grown. Fruits also and the usual vegetables receive their full meed of care, with the best results.

FUCHSIA RICCARTONI

In the Southern Counties we do not see nearly as much of this grand old Fuchsia in gardens, large or small, as its merits deserve, nor nothing like the quantity found near the sea in the Eastern Counties or more particularly in North Wales, where it flourishes amazingly. In and around Colwyn Bay bushes of this and its parent *globosa* are to be found in almost every garden along the coast, and they make a delightful display from July till November. The finest bushes—indeed, they are trees—I have seen are growing in the gardens of Penrhyn Castle, some few miles from Bangor, and not far from the sea. The specimens are fully 15 feet high and many yards across. The variety *F. macrostemma globosa* Riccartoni is a seedling from *globosa* raised at

Riccarton, near Edinburgh, somewhere about the year 1830. It is more brilliant in its tube and sepal colouring than its parent *globosa*. The original cuttings were obtained from Riccarton by Mr. Speed, the present head-gardener at Penrhyn Castle, some forty years ago. Growing on grass they are a fine sight, especially in September. In the gardens at Bodnant Hall, near the River Conway, these hardy Fuchsias are being largely employed for draping terrace walls. Planted in nooks near the tops of the walls, which are some 12 feet high, the plants droop gracefully down the western side. When established they will be a gorgeous sight.

E. M.

THE FRENCH & ENGLISH CLASSIFICATION OF THE AURICULA

BY C. HARMAN PAYNE.

TO anyone interested in florists' flowers it is really very difficult to understand the different ways in which the English and French florists classify their favourites. There seems to be no means of identifying the sections, and an English amateur of, say, the Carnation will wonder why that flower in its various divisions of selfs, flakes, bizarres, to say nothing of Cloves, Pinks, Picotees and Sweet Williams, should all be included in the French general term of "*Céillet*." "*Giroflée*" includes Stocks and Wallflowers, and these French florists' divisions are practically incomprehensible to the English specialist in florists' flowers.

We all know how the Auricula is classified here, but when we come to read French treatises on that flower we are more or less mystified by the terms employed by our French colleagues.

I have recently dug up from the depths of my library some old periodical French publications which it has become necessary to destroy for want of space. But there are a few which contain some interesting matter, and these I have placed aside for future reference. In one there is a most elaborate and explicit explanation of the methods of Auricula classification by English and French florists. It is written by Comte Méry de Montigny of Lille, a town long famous for its florists' flowers. Some day, when the opportunity occurs, I may translate the whole of it for the benefit of those readers of THE GARDEN who have been interested in the recent Auricula articles. But at present I can do no more than reproduce in a few words Comte Méry de Montigny's remarks on Auricula classification, which will show the differences in the English and French methods and thus help English readers to understand the two systems. It is obvious that to do so the original French terms must be retained and not translated, otherwise identification would be impossible.

He says: "Formerly, Auriculas were divided into *lustrées*, *satinées*, and *bizarres*. These varieties were at that time considered the most beautiful. Subsequently they were divided into: 1, *pures*; 2, *liégeoises*; 3, *doubles*; 4, *poudrées*; and 5, *bizarres*, which were also powdered, but of various curious forms.

"In our day the English make five sections of them, viz., 1, the green edged; 2, the grey edged; 3, the white edged; 4, the selfs; and 5, the alpine (*les communes*). In France we divide them into four sections: 1, the *pures*, called also the *ordinaires* or *communes*; 2, the *ombrées* or *liégeoises*; 3, the *Anglaises* or *poudrées*, comprising the green edged, the grey edged and the white edged; and 4, the *doubles*."

Descriptions of the sections are as follow: First section—*Pures* or *ordinaires* or *communes* (the alpine of the English). Then follows a verbal description of the varieties in this section and the following ones, which is too long to be given in the present notes: Second section—The *ombrées* or *liégeoises* (the selfs of the English); the *liégeoises* appear to be another type from the selfs. Third section—*Anglaises* or *poudrées*, evidently our show Auriculas. He divides this section into three subsections: 1, the green edged; 2, the

grey edged; and 3, the white edged. The description of this section is particularly full and explanatory. Fourth section—the *doubles*. "These," he adds, "are but little esteemed in Holland and England."

NATIONAL PARKS AND RESERVES

BY W. BOTTING HEMSLEY, V.M.H.

MOST of the British Dominions and Protectorates have reserved certain attractive and favoured districts and areas as permanent national property, both for the preservation of the native fauna and flora and the physical beauties and wonders of the localities and for the pleasure and instruction of the inhabitants and visitors. New Zealand is peculiarly rich in natural attractions and has dedicated several regions to the permanent use of the public,

mountains and valleys and canyons, rivers and lakes, waterfalls and geysers, animals and vegetation, and other natural productions of surpassing grandeur, besides ruins of colossal prehistoric buildings.

Prominent among the trees are the numerous species of Fir and Pine, and the even more gigantic Redwood and Sequoia or Mammoth. Exact dimensions are given of some of the larger examples of the Mammoth. The "General Sherman Tree," the largest and oldest living thing in the world, is 279.9 feet high and has a diameter of 36.5 feet. Particulars are given of several others of slightly smaller dimensions. This series of illustrations possesses the greatest interest for all lovers of Nature, and will be specially appreciated by those unable to travel. The complete collection weighs little over a pound avoirdupois.

AN INTERESTING HARDY SHRUB

THOUGH not new, *Moltkia petraea*, an Eastern European shrub, is comparatively unknown in



VARIEGATED NEW ZEALAND FLAX COVERED WITH FLOWER SPIKES AT LOGAN.

including nearly the whole of the lovely Stewart Island, the "Fern Paradise" of the Southern Hemisphere. More or less perfect illustrated guides to all of these places have appeared. But the Department of the Interior of the United States has set a good example by issuing a set of practical pictorial guides to their vast preserves under the title of "National Parks Portfolio." This work is of octavo size and consists of nine separately stitched parts, each containing a selection of beautifully reproduced views with brief explanatory text. There is a general Introduction of three pages, and a register of the areas and dates of foundation of the various parks, beginning with the "Hot Springs Reservation," Middle Arkansas, circumscribed in 1832, and only about one and a half square miles in extent. Yellowstone followed in 1872, and comprises an area of 3,348 square miles; in other words, half the size of Wales. The total area of the parks illustrated is about the same as that of the whole of Wales. The 240 views comprise

gardens, though it possesses qualifications which should secure it general attention. It is included in the Borage family, which alone makes it of interest, for the Order Boraginaceae contains but few hardy plants with woody stems, the chief genera being *Ehretia*, *Lithospermum* and *Moltkia*. *Moltkia petraea* is allied to *Lithospermum*, and has been known as *L. petraeum* and *L. rosmarinifolium*. It may, however, be easily separated from *L. prostratum*, for it is of stiff, upright habit and bears greyish, Lavender-like leaves. Its blue flowers are borne in terminal heads during summer, and they appear freely enough to make a good display. It is a plant eminently fitted for the rock garden, for it is stiff and sturdy, and will not readily exert any harmful influence on any choice subject in the vicinity. It is also useful for planting in a small bed on a lawn, or as a group in the front of a shrubbery. Cuttings of half-ripe shoots may be rooted in sandy soil in summer, and young plants may be put straight out of pots into permanent positions. W. D.

JOTTINGS FROM A WELSH GARDEN

BY A. T. JOHNSON.

ALTHOUGH November is far spent, some of the borders are still happy with flowers. No frost, however stealthy, has so far dared to set foot in the sanctuaries of autumn. Indeed, this month of ill fame has done much to retrieve the reputation of its forerunner, which smote us with weeks of savage weather and gave us the merest pittance of its "corn and wine and oil." We are enjoying a spell of those delightful days, blest beyond all others, when the mists like wool sleep late in the valleys of the morning and curtains of violet are drawn across the silent places of the hills; days when a steel blue vapour rises like smoke from leaning Bracken and the threshing-machine drones its requiem of summer across a mellowed earth. In such golden hours as these the flash of a silvered ploughshare or the good earthy smell of the Potato fields might inspire an epic. Faithful to their promise, the Antirrhinums which had failed us in August have become a blaze of colour. The Begonias also, having lost that pathetic expression of "the soiled glory and the trailing wing," are now "a tribe of turbulent fighting-cocks," ruthless intruders, usurping, so M. Maeterlinck thinks, the place of our own old-fashioned flowers. One by one the butterflies have gone. Without them our autumn garden would have lost much of its charm and the Cabbage patch much of its affliction. In the truest meaning of the term these gay spirits have had the time of their lives this season. They rioted in that unseemly revelry of tipsy bees and penitential flies, for whose undoing the "drowsy syrups" of *Sedum spectabile* were to blame. They lingered in

the honeyed breath of *Buddleia variabilis* and wantonly jilted the late blossoms of their time-honoured love, the old Red Valerian, in favour of some bold heads of Michaelmas Daisies. And it was curious to observe the fine discrimination in taste exercised by these butterflies between the various varieties of the last-named flowers. It was almost always the pinks and bright purples which attracted them, and even if these were doubles, yielding but little, if any, nectar, they would hover over them as if fascinated by their colour and take but little notice of the blues and dainty lavenders which might be blooming close by.

The old *Anemone japonica* is a late season subject for which we have a warm regard. And it is not because it so heartily resents attention and tidiness and other things which mean work; it is not merely that it encourages downright idleness and never reminds us of our faults that we so unreservedly appreciate the Windflower of Japan. There is much, of course, to be said for its delightful habit of independence, but it has an intrinsic charm of its own, a little prim and Early Victorian

perhaps, but withal a classic grace in stem and leaf as well as in blossom. It is, moreover, a "back-end" bloomer of unfailing regularity. To-day it is flowering among a little colony of *Azalea mollis* and *Menziesia polifolia*. It is rather a tight fit, for the Heath has spread into larger bushes than was anticipated at the time of planting, and the *Anemones* must thrust their flower-stems through the thick foliage which threatens to smother them. But none of the three seems to resent the crowding. Indeed, a happier trio we do not desire to possess, and it is one which affords us a delightful succession of colour from May to late November. As the soil is somewhat shallow and the aspect sunny, the *Anemones* do not attain a height of more than about 2 feet, so that they are not out of keeping with their companions which have not exceeded that stature, though they have been there for years.



TRITELEIA UNIFORA. A LITTLE GEM FOR NATURALISING.

That exquisite little winter-flowering *Rhododendron*, *R. ferrugineum præcox*, again bears a promise among its yellowing leaves of a generous yield of blossom. This is with us among the most satisfactory of its genus, for, being an early flowerer, it appears to be able to stand with impunity a severe summer baking even in our hot, shaly soil. At any rate, this last summer it passed through an ordeal of drought and heat that made the native Gorse with which it grows turn pale, and few subjects can stand excessive dryness better than the latter. Although the lovely shell pink blossoms of this *Rhododendron* are as hard as nails and able to survive almost anything but a white frost, the natural protection afforded by a few clumps of Gorse to break the north wind to which ours are exposed ensures a longer period of blooming. Last winter the first flowers opened with us on January 16, and though the weather was everything but genial, these brave little *Rhododendrons* maintained a wonderful display for nearly six weeks. These particular shrubs had a little leaf-mould mixed with the soil when planted some years ago, but they have never had any

attention since. Some of their more fastidious relations might well adopt from these uncomplaining beauties a few hints on the virtues of humble resignation to circumstances.

If it were not for the *Cyclamens*, there would not be very much colour along the streamside to-day, and most of these have already wound themselves into watch-springs and are very gravely and very deliberately interrering their embryo offspring. *Spiraea Anthony Waterer* still hangs some crimson discs over the water; *Montbretia*, naturalised among the creeping Ivy, is glowing with the fires of autumn; and a cluster of *Primula denticulata* in mauve, having made a miscalculation, is about to bear a second crop of blossom. The result of scattering about an ounce of *Aquilegia* seed about the banks of the stream last June is a crop of lusty seedlings, many of which will bloom next year.

All the *Liliums* have gone, save a few belated *L. speciosum*, and these are hiding their fleeting loveliness among the *Rhododendron* branches, possibly afraid lest they might be called upon to suffer the same fate which has befallen a newly planted number of their tribe—those unfortunates

which have had their heads cut off to save their lives. We only hope it may. But those decapitated stems, raised imploringly to high heaven like the eyes of the blind, haunted us with a pleading so piteous that we hardly ever passed them by without being stung by silent reproach. But *Veronica* has done her best to make amends for our great sin. Of all the many bushels of last year's leaves which she has gathered from the deep hollows of the wood, the oldest and sweetest has she offered in penitence and humility to these headless effigies. No, we shall neever do it again; we shall achieve our ends some other way.

Why do some *Daffodils* and *Narcissi* naturalised in certain soils deteriorate until they ultimately produce little but a lusty bunch of grass? While

most of the Trumpet *Daffodils* soon go off in this manner with us, those of the *Stella* type are generally satisfactory. Again, while the comparatively tender *Polyanthus Narcissus* and the *Phoenix* bloom year after year on our Ivy-clad banks, *N. Poeticus* and *N. ornatus* soon cease to flower. And this is the more perplexing when one is faced by the fact that the little native *Daffodil* (base usurper of the time-honoured national emblem and fragrant associate of the Welshman's soup) flourishes with such evident satisfaction.

"Blue! Gentle cousin of the forest green,
Married to green in all the sweetest flowers,"

affords such a delightful contrast to the prevailing yellows of the wild garden in early spring that we cannot allow an autumn to go by without adding to our colonies of *Scillas* or planting new ones; a haze of heavenly azure on a moss-grown slope beneath some leafless *Sycamores*; a symphony in blue and white upon the short, sweet turf of a woodland walk. These are worth achieving, and *Scillas bifolia* and *taurica*, with *S. sibirica* to

follow on, will create them. At any rate they do so for us, in spite of the mice; and the native nutans, which yields us many a pool of blue among the bronze and green velvet of unfolding ferns, is now rivalled, but not excelled, by some groups of its campanulate relations of the hispanica type. Nor can we omit the dainty little *Triteleia uniflora*, which, if it cannot claim the distinction of novelty, is, nevertheless, a little gem of the first water for naturalising. It verily loves our warm woodland soil, and we would not miss for a good deal its ivory rays, so delicately suffused with a violet wash, when the old Oaks are scribbling the awakening earth with a map of their leafless limbs. The spring Star Flower has, moreover, another attribute, and a rare one withal among its contemporaries, and that is a most delicious fragrance—a fragrance, indeed, which only a flower of such excellent taste in colour could possess. Then when this friendly, confident little visitor feels that it is time to go away; when, with the fast of the Scillas, it sinks unnoticed into the hurrying verdure of later days, and the countless stars of *Ornithogalum* are gleaming with their cold and silvery radiance in the Muscari's lingering violet; it is then that the Camasias on the sunny Heath bank beyond will raise their stately spires as if they would bear into the very heart of summer a memory of the brave blue days of spring.

THE NATIONAL LAND & HOME LEAGUE'S WORK

THE conflicting claims of town and country are a political problem almost as old as our political institutions. The substitution of pasture for arable was a grievance in the reign of Henry VIII. and rural depopulation was the constant subject of Elizabethan legislation. Sometimes for a decade the problem has dropped out of notice, and then it has been rediscovered and the agitation breaks out in some new form. Ten years ago the long spell of quiescent Conservative rule had come to an end and the Parliament of 1906, consisting largely of young and untried men eager to be up and doing, promised a great effort to bring the people back to the land. The Small Holdings Act of 1907 and the agitation which accompanied it gave rise to a number of voluntary societies. The first was the Central Small Holdings Society, established a few years before the Act, under that or another name. Then there was the Land Club League, a federation of village societies which had been formed to enforce the Act in various districts around London. The Rural Development Society was another body, which laid special stress on local electoral work. Lastly, there was a Wiltshire federation of village societies called the Land and Home League.

A few years later all those bodies amalgamated into the society whose name is at the head of this article. The league is somewhat unusual in one respect. It was, before the war, closely connected with political questions, and was constantly concerning itself with Bills before the House of Commons, or with deputations to Ministers, and seeking to influence the administration of the law; and yet it was in fact as well as in name entirely non-party. Its president, who is one of its most active members, is Lord Henry Bentinck, Conservative M.P. for Nottingham. The chairman of its executive, Lord Saye and Sele, was, until the Coalition, a member of the Liberal Government. On its executive is

operations; the best men are at the Front, or too hard at work to think of anything else. The provision of small holdings has been stopped because the Government will find no money for loans. For the same reason it is useless to work for the improvement of rural housing. The minimum wage for agricultural labour, like all other domestic legislation, is necessarily deferred until the war is over. The league itself has been handicapped for want of funds, and the monthly magazine has been suspended.

But it has found one form of activity which should especially commend itself to readers of *THE GARDEN*. The ideal cottage garden is all too rare. The principle of the Elizabethan law that no cottage should be built without a garden is more honoured in the breach than in the observance. In towns we are necessarily forced to some other alternative, and for the working man this alternative is an allotment.

For the provision of allotments in the neighbourhood of towns, war-time is propitious. There is plenty of building land, often odd bits, too small for farm purposes, lying derelict or only half used. Building is stopped for some years to come; and the owners are alive to the importance of the claim that every rod of land should be utilised for food production. On the other hand, the demand for allotments by working men on the outskirts of the towns is everywhere urgent. The difficulty is that someone is needed to organise the men, and often to undertake the responsibility of guaranteeing the rent, or in cases where no rent is charged, the rates or other outgoings, and the repayment of costs of fencing, &c.

In Norbiton and Kingston there are two very flourishing allotment societies affiliated to the league, which has been able by advice and encouragement to promote the efforts of the local men, mostly railway servants, to secure land which was a waste of brickbats and rubbish, and is now a highly cultivated area affording food and recreation to hundreds of hard-worked artisans.

More recently the league has arranged with the owners of two acres of building land at Manor

Park, Lee, to become tenants at a purely nominal rent on behalf of an association of allotment holders, and fine crops have been raised on the land during the summer.

In conclusion, perhaps we may add that the league, whose address is Queen Anne's Chambers, Tothill Street, Westminster, will be glad to hear from any readers who require allotments, especially if they can indicate suitable land which may be available for the purpose. It is a patriotic duty in war-time to increase by all possible means our none too ample food supply. We know that there is unused land; we know that there are willing workers. It is the business of the league to bring the two together and thus to increase the well-being of the nation. M. P.



DECEMBER FLOWERS ON VERONICA MACROCARPA.

Mr. George Roberts, Labour M.P. for Norwich and a member of the Coalition Government. The first three vice-presidents in alphabetical order are a Socialist M.P., a Conservative M.P., and a proprietor of the *Daily News*!

The general object of the league is the revival of country life; it works for this by promoting the extension of small holdings and allotments, the improvement of rural housing, the encouragement of co-operation, the amendment of rural education, the provision of village halls, libraries and institutes, and by agitating for the application of the Trade Boards Act to agricultural labourers.

Two years of war have somewhat seriously affected the activities of the league. The land clubs and other village societies have, suspended

THE ROSE ANALYSIS, 1910-1916.—II

BY COURTNEY PAGE, SECRETARY OF THE NATIONAL ROSE SOCIETY.

TEAS AND NOISETTES.

THIS section is becoming more and more vigorous every year, owing to the introduction of new varieties containing a large amount of Hybrid Tea blood, and of much stronger growth with enormous blooms. In fact, one now finds it a difficult matter to know really where the Hybrid Teas end and the Teas start. In the present analysis all the varieties which are sufficiently old to allow of this being done have been arranged according to their average performances at the last six exhibitions.

After a reign of thirteen years—unlucky number!—that sterling old variety White Maman Cochet has been displaced by Mme. Jules Gravereaux and Mrs. Foley Hobbs, but it is only fair to note that although White Maman Cochet has had to

take third place in the present table after having kept its position so long, it still runs very closely that grand variety—perhaps the finest Rose the raisers have ever produced—Mrs. Foley Hobbs, ivory white, shaded, now standing at No. 2.

In this table the alterations are very few. Alexander Hill Gray, deep lemon yellow, has this year risen from No. 20 to No. 14; while Muriel Grahame, Comtesse de Nadaillac, The Bride and Catherine Mermet were never before so sparsely shown. Souvenir d'Elise Vardon, which disappeared from last year's analysis, has reappeared at No. 24, displacing that fine old white variety Souvenir de S. A. Prince. There is only one new-comer—Mrs. Herbert Hawksworth, creamy white—which on its first appearance takes up a place in the table at No. 18.

TEAS AND NOISETTES.—TABLE II.

Position in Present Analysis.	Average No. of Times Shown.	No. of Times Shown in 1916 in Proportion to the Average.	Name.	Date of Introduction.	Raiser's or Introducer's Name.	Colour.
1	63.0	68	Mme. Jules Gravereaux	1901	Souper et Notting	Flesh, shaded yellow
2	61.5	50	Mrs. Foley Hobbs	1910	A. Dickson and Sons	Ivory white
3	58.0	17	White Maman Cochet	1897	Cochet	White, tinged lemon
4	42.3	11	Maman Cochet	1893	Cochet	Deep flesh, suffused light rose
5	30.7	18	Mrs. Edward Mawley	1899	A. Dickson and Sons	Pink, tinted carmine
6	30.3	26	Mme. Constant Souper	1905	Souper et Notting	Deep yellow, shaded peach
7	28.0	32	Molly Sharman Crawford	1908	A. Dickson and Sons	White, shaded eau-de-nil
8	25.0	22	W. R. Smith	1908	Henderson	White, tinged blush
9	20.2	9	Souv. de Pierre Notting	1902	Souper et Notting	Apricot yellow, shaded orange
10	20.0	5	Mrs. Myles Kennedy	1906	A. Dickson and Sons	Creamy white
11	16.5	21	Medea	1891	W. Paul and Son	Lemon yellow
12	15.6	8	Mrs. Hubert Taylor	1909	A. Dickson and Sons	Creamy white, suffused pale
13	13.7	18	Nita Weldon	1908	"	White, tinted blush
14	12.3	23	Alexander Hill Gray	1911	"	Deep lemon yellow
15	10.0	2	Comtesse de Nadaillac	1871	Guillot	Peach, shaded apricot
16	10.0	2	Muriel Grahame	1896	A. Dickson and Sons	Pale cream
17	7.6	8	Mrs. Dudley Cross	1907	W. Paul and Son	Pale chamois yellow
18	7.0	2	Maréchal Niel, N.	1864	Pradel	Deep bright golden yellow
18*	7.0	7	Mrs. Herbert Hawksworth	1912	A. Dickson and Sons	Creamy white
20	6.8	4	Auguste Comte	1896	Souper et Notting	Madder rose, fawn shading
21	6.3	1	The Bride	1885	May	White, tinged lemon
22	5.2	0	Catherine Mermet	1869	Guillot	Pale rose pink
22	5.2	2	Souvenir d'un Ami	1846	Belot-Defougere	Pale rose
24	5.0	2	Souvenir d'Elise Vardon	1854	Marest	Cream, with rosy tint

DECORATIVE ROSES.—TABLE III.

Position in Present Analysis.	Average No. of Times Shown in Six Years.	No. of Times Shown in 1916	Name.	Date of Introduction.	Colour.
1	9.0	1	Blush Rambler, Mult. Rambler	1903	Blush rose
2*	8.0	8	Irish Fireflame, H.T.	1913	Fiery orange crimson
2	8.0	8	Mme. E. Herriot, Pernetiana	1913	Terra-cotta, passing to strawberry rose
4	7.5	0	Hiawatha, Wich.	1905	Rich crimson, with white eye
5	6.8	14	Irish Elegance, H.T.	1905	Shades of apricot
6	6.4	4	American Pillar, Wich.	1909	Clear rose, pink centre
7	6.0	3	Rayon d'Or, Pernetiana	1910	Bright golden and canary yellow
8	5.5	0	Lady Gay, Wich.	1905	Rose pink
8	5.5	0	Dorothy Perkins, Wich.	1901	Rose pink
10	5.0	5	Jersey Beauty, Wich.	1899	Rich yellow, opening to cream
10*	5.0	5	Old Gold, H.T.	1913	Old gold, tinged scarlet
12	4.8	3	Albéric Barbier, Wich.	1900	Yellow buds, changing to creamy white
13	4.7	3	Léontine Gervais, Wich.	1906	Salmon rose, tinted yellow
14	4.5	3	Lady Hillingdon, T.	1910	Bright golden yellow, shaded fawn
14	4.5	4	Mrs. Herbert Stevens, T.	1910	White
16	4.4	0	Excelsa, Wich.	1909	Bright rosy crimson
17	4.3	4	Gardenia, Wich.	1899	Bright yellow, changing to cream
18	4.2	1	Mme. Abel Chatenay, H.T.	1895	Pale salmon pink, deeper centre
18	4.2	3	Mrs. Alfred Tate, H.T.	1909	Coppery salmon, shaded fawn
18	4.2	5	Trier, Hybrid Musk	1904	Creamy white, edged fawn
21	4.0	0	Crimson Rambler, Mult. Rambler	1893	Crimson
22	3.7	1	Arthur R. Goodwin, Pernetiana	1910	Coppery orange, passing to flesh
22	3.7	3	Mrs. W. H. Cutbush, Poly. Pom.	1906	Bright deep pink
24	3.6	0	Orleans Rose, Poly. Pom.	1909	Vivid rosy crimson
25	3.5	0	Lady Godiva, Wich.	1908	Pale blush, deeper centre
26	3.2	2	Gustave Regis, H.T.	1890	Nankeen yellow
27	3.0	1	Ecarlate, H.T.	1907	Light scarlet
27	3.0	4	Lady Pirrie, H.T.	1910	Delicate coppery salmon
27	3.0	2	Minnehaha, Wich.	1905	Deep pink
27	3.0	4	Mrs. F. W. Flight, Mult. Rambler	1905	Deep pink
27	3.0	0	White Dorothy, Wich.	1908	Pure white

* New varieties, whose positions are dependent on their records for the 1916 show only.

DECORATIVE ROSES.

We now come to the decorative Roses. By this term is meant those varieties that are not sufficiently large or regular in form to allow of the individual blooms being staged singly at shows, like the exhibition varieties.

In the preceding table the varieties are arranged according to the number of times they have been staged in the prize-winning stands during the last six summer exhibitions of the National Rose Society. For the varieties of more recent introduction the longest trustworthy averages are given instead, and no Rose is included that has not been staged at one or other of the six shows three or more times.

Blush Rambler still heads the list, followed by Irish Fireflame, Mme. Edouard Herriot, Hiawatha and Irish Elegance. That fine new Rose Irish Fireflame, a lovely orange copper sport from Irish Elegance, has at the first time of asking taken its place in the table at No. 2, being bracketed with Mme. Edouard Herriot, terra-cotta, introduced in the same year. Taking the dwarf varieties first, Irish Elegance has this year risen from No. 11 to No. 5; Old Gold, from No. 23 to No. 10; while, on the other hand, Rayon d'Or has fallen from No. 3 to No. 7; Mme. Abel Chatenay, from No. 6 to No. 18; and Lady Hillingdon, from No. 11 to No. 14. Mme. Ravary, which in last year's table stood at No. 15, now disappears from the analysis. Arthur R. Goodwin and Orleans Rose, too, have each to register falls.

Among the climbing varieties Albéric Barbier has risen from No. 19 to No. 12; Gardenia, from No. 28 to No. 17; and Trier, from No. 23 to No. 18; while, on the other hand, Excelsa has fallen from No. 9 to No. 16; and Crimson Rambler, from No. 5 to No. 21. Of the dwarf Roses most frequently staged in recent years, Mme. Edouard Herriot heads the list, closely followed by Irish Elegance and Rayon d'Or. The audit of the newer decorative Roses will be given in Table VI.

(To be continued.)

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

Plants Under Glass.

Auriculas.—The winter treatment of these plants in the cool house and frame is important. Give them abundance of air on all favourable occasions, even pulling off the lights for two or three hours during the middle of the day when the sun is shining. During December and January most growers carefully examine all their plants. Having seen that the drainage is satisfactory and the soil in good condition, many of the plants may only require the removal of offsets and top-dressing with a little fresh compost similar to that used for potting, previously removing decaying leaves. Others will require repotting.

Canterbury Bells.—Flowering a month or six weeks in advance of plants in the open border, it is worth while growing a batch of these early summer flowering plants in pots, especially when the show house is a large one. Lift now from the open border and place in 6-inch and 7-inch pots, standing them in a cold frame.

Stocks.—A frame for these for spring flowering require the final shift into 6-inch or, in the case of extra strong plants, 7-inch pots. The sorts suitable include All the Year Round, East Lothian, Beauty of Nice and Empress Elizabeth. The best place for the plants from now onwards until the flower-spikes push is a shelf near the roof glass in a cool greenhouse.

The Hardy Fruit Garden.

Raspberries, Loganberries and Blackberries. In normal times the old growth of these fruits is cut out as soon as fruiting is finished, but this

year a lot of this work still remains to be done, and lack of labour will prevent much replanting being attempted. Having cut out the old wood, some of the wooden poles or stakes will need replacing, and also attend to the wires and tying so that there shall be no trouble from this cause next summer. Much more use should be made of the fruiting Blackberries; they are valuable in autumn, and when trained on arches over the garden paths they occupy little ground.

The Kitchen Garden.

Celery.—Complete the earthing up of the late rows if not already attended to. Have ample light protecting material at hand in case of frost, as if the tops are badly frozen, decay sets in and will soon get down into the blanched sticks.

Preparing the Ground.—This should be a time of clearing up and preparing for next season's crops. Shortage of labour has meant that the garden has not been kept so clean as usual. In large gardens fires are often kept burning a good part of the year. With a good body, weeds and rubbish will smoulder through gradually and provide excellent material to return to the kitchen garden. When manuring the ground, be guided somewhat by the next crop it is proposed to plant. Lime may be used with advantage, especially in old gardens. Basic slag is a good manure to use now, being slow acting. In trenching or digging for Onions, Carrots, Parsnips and, in fact, for all crops, leave the surface rough.

Fruit Under Glass.

Tomatoes.—For ripe fruits in May, seeds of Tomatoes should be sown about this date in a warm house. To dispense with the first potting, sow two or three seeds in a small pot and reduce the seedlings to one when it is seen which promises to make the best plant. Winter Beauty, A 1 and Sunrise are good varieties.

The Flower Garden.

The Rock Garden.—This is a convenient time, when the weather permits, to go systematically through the rock garden with a view to removing weeds, cutting off pieces of the more vigorous plants which are crowding their less robust neighbours, also pricking up the soil where hard, and top-dressing with a fresh compost where necessary. Some replanting will no doubt be desirable. A few dwarf shrubs improve the appearance of a rock garden, especially at this season. In addition to dwarf conifers, such plants as *Cotoneaster thymifolia*, *C. adpressa*, *C. horizontalis*, *Berberis Wilsonæ*, *Pernettya mucronata*, *Gaultheria procumbens*, *Rhododendron intricatum* and *Salix Bockii* all add to the interest and beauty of a large alpine garden.

Michaelmas Daisies.—This is a good time to propagate the plants by division of the clumps. Lifting and dividing may be done every year, or at least in alternate years, as the Michaelmas Daisies are very free in growth and delight in a rich soil, the replanting of the clumps providing a good opportunity to deeply dig and manure the ground.

Kew.

A. OSBORN.

FOR NORTHERN GARDENS.

The Hardy Fruit Garden.

Pruning Gooseberries.—The tipping of the Gooseberry shoots in autumn as a part of the treatment against attacks of mildew has somewhat altered our method of pruning, which consisted of a good general thinning out of the branches and leaving a proportion of the young growths their full length without any shortening. Where tipping has been done, the bushes will require to be pruned on the short spur system.

Red and White Currants should be spurred close in, leaving the leading shoots about a third of their length for extension where this is necessary. Keep the centres of the bushes well thinned out to allow plenty of room for the free circulation of air when the bushes are in full leaf.

Black Currants, which fruit principally on the growths of the current year, should be annually thinned out, and long branches cut down to induce a continuous supply of fresh young wood from the base.

Cuttings.—Select a sufficient quantity of straight young shoots from the prunings for cuttings. These can be tied in bundles and

labelled, laying them in on a spare piece of ground until a wet or stormy day, when they can be prepared under cover. Gooseberry and Currant cuttings should be from 15 inches to 18 inches long. Trim off all the buds towards the base, leaving three or four at the top, and when finally inserted in the ground they should be at a depth to provide for about 6 inches of clean stem in established young bushes. Black Currants may be prepared in the same way, except that no provision need be made for a stem, young growths of these being encouraged from the ground-level. If it is not convenient to have the cuttings placed in position at once, they may be heeled in until a suitable opportunity occurs. When setting these out in lines, the cuttings should be kept as nearly perpendicular as possible.

Spraying Fruit Trees.—Spraying with caustic alkali wash is generally recommended to be done in February, just before the buds begin to move; but as that is usually a very busy season in the garden, and under present circumstances much of the work has to be done to suit the altered conditions, it may be found convenient to have this done in advance of the usual time. Any mild day during winter after the pruning is finished can be selected for applying the wash. This work should be undertaken if at all possible.

Fruit Under Glass.

Early Vines.—Pruning, cleaning and preparing the earliest Vines for starting will now be engaging the attention of the fruit-grower. The earliest houses, unless in isolated cases, will not be closed before the beginning of the year. If earlier Grapes are required, it is better to rely on specially prepared pot Vines and save the permanent planted-out rods from undue forcing. Those houses containing Grapes requiring a long season to mature should be got ready with a view to closing them early in February, until which time the Vines should be kept quite cool and at rest. In anticipation of high prices and a greater scarcity of coal during the ensuing season, it may be well to bear in mind that certain varieties of Grapes can be successfully grown without the aid of fire-heat. Such varieties as Black Hamburgh, Black Alicante and Appley Towers have been grown here during the past season without the assistance of fire-heat, and these finished admirably, notwithstanding a cold and sunless season. The starting of the Vines was, of course, delayed as long as possible by keeping the ventilators fully open until all risk of severe weather was past, after which full advantage was taken of all the sun-heat available.

Plants Under Glass.

Chrysanthemums.—As these pass out of flower the stems should be cut down to within a few inches of the soil and the pots removed to a cool and light position. If cuttings are plentiful, all the pots need not be kept, save only as many as are likely to be required. Those varieties that are shy in providing cuttings should have the surface soil scratched off, a little light compost of sand and leaf-mould placed on the surface, and the pots placed in a gentle heat to induce the suckers to grow. A batch of cuttings may now be inserted at any time as soon as these can be got in good condition. It is better to take the cuttings in small lots as soon as they are ready than to wait for the later ones being in good condition and risk spoiling many of the earlier ones.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

EDITORIAL NOTICES

Every department of horticulture is represented in THE GARDEN, and the Editor invites readers to send in questions relating to matters upon which they wish expert advice.

The Editor welcomes photographs, articles and notes, but he will not be responsible for their safe return. All reasonable care, however, will be taken, and where stamps are enclosed, he will endeavour to return non-accepted contributions.

As regards photographs, if payment be desired, the Editor asks that the price required for reproduction be plainly stated. It must be distinctly understood that only the actual photographer or owner of the copyright will be treated with.

The Editor will not be responsible for the return of artistic or literary contributions which he may not be able to use, and the receipt of a proof must not be taken as evidence that an article is accepted. Publication in THE GARDEN will alone be recognised as acceptance.

ANSWERS

TO CORRESPONDENTS

RULES FOR CORRESPONDENTS.

QUESTIONS AND ANSWERS.—The Editor endeavours to make THE GARDEN helpful to all readers who desire assistance, no matter what the branch of gardening may be, and with that object makes a special feature of the "Answers to Correspondents" columns. All communications should be clearly and concisely written on one side of the paper only, and addressed to the EDITOR of THE GARDEN, 20, Tavistock Street, Covent Garden, London, W.C. The name and address of the sender are required in addition to any designation he may desire to be used in the paper. When more than one query is sent, each should be on a separate piece of paper. Plants for naming should be clearly numbered and securely packed in damp grass or moss, not cotton-wool, and flowering shoots, where possible, should be sent. It is useless to send small scraps that are not characteristic of the plant. Letters on business should be sent to the PUBLISHER.

FLOWER GARDEN.

CAMPANULA STANSFIELDII AND OTHER QUESTIONS.—Can you tell me if *Campanula Stansfieldii* really exists? I read glowing accounts of it, but I cannot find mention of it in any catalogue that I have. I felt sure that I could get it from M. Correvo, but no. Now I am beginning to wonder if it is not of the "Mrs. Harris" variety! I am struggling to grow alpine by the aid of books and much expenditure of money. It is a thrilling occupation, and each year brings better results, till I hope in time to have a rock garden worthy of the name. Just at present I am much harassed over my one solitary wee plant of *Dianthus neglectus*. Lime or no lime is the question, and moraine or open soil? I obtained only two plants that really look like *D. neglectus*—not that I have ever seen it outside a picture. Most of the seedlings were hybrids, and flowered joyfully in a very short time; but they were not the real thing. The other plants had very tiny leaves. One, I regret to say, I planted and lost; but the other I have, and I am frightened to look at it in case it "dies on me." However, I have replanted it in the moraine with no lime, and await results with bated breath. One of my treasured books says "absolutely no lime"; in another place, "plant with plenty of lime rubble." Depressing, is it not? Some months ago I bought a plant from a nurseryman (the only one in New Zealand who pretended to grow alpine, as far as I am aware). It was supposed to be *Campanula cenisia*, and was a pale blue mass of little stemless stars. Now, every book says it must be grown in moraine. It certainly was not in moraine when I bought it, neither did I plant it there; but I felt very bad one evening when I read in a book that it was practically impossible to grow it anywhere else. I rushed out next morning, meaning to move it, but the plant looked so very cheerful that I compromised by putting a cutting of it in the moraine, and now both plants are doing quite well. I enclose a leaf of this so-called "cenisia." Will you please see if you can tell whether that is right? Owing to an unfortunate accident, my few *Campanulas* have got mixed, and I do not know one from the other, except the "cenisia." When they bloom I will press a leaf and flower of each and ask you to name them, if you will be so kind. The soil here has a great deal of iron in it, and consequently blue flowers are very blue. We have quantities of *Hydrangea*, and its colour is wonderful. I suppose there are many alpine for which this climate is not suitable. It is mild enough to grow *Heliotrope* outdoors all the winter except in a very exposed place. I have friends here who cut their plants down with the "slasher" every year. I war perpetually with slugs. They are in large numbers and many varieties. One in particular can be had several inches long! I can keep the slug and snail pest down by continually searching for them, but the worst enemies as far as numbers are concerned are woodlice. They are in countless millions. I do not think they do a great deal of harm except in the very early seedling stage, when they will walk off with tiny plants bodily. I could write a great deal on the trials and troubles of an amateur rock gardener here.—ETHEL O'CALLAGHAN, Hawera, New Zealand. [This *Campanula* is no myth. We grow it ourselves, and it is available in quantity if desired. You should send to England for your alpine. There is no country in the world which specialises so much in the best of them or that can send you such good value for money in seeds or plants. The plant named has grey, inch-long leaves, and solitary purplish bells horizontally disposed on 3-inch stems. It may, indeed be nearly twice that height when fully grown. It is a hybrid of uncertain parentage, quite good and an easy doer. Nearly all the *Dianthus* like lime, and *D. neglectus* is one of them. It does well in sandy loam and old mortar, and is good in the moraine; not at all difficult, and easy to grow from seeds. "Lime and sun" is the formula, with firm planting and good drainage. The leaves sent are certainly not those of *Campanula cenisia*, the flowers of which are funnel-shaped and of pale electric blue tone. Your plant with the "mass of little stemless stars" we should think is *C. garganica*, and the leaves you send, though small, agree with this. This latter is of prostrate habit. *C. cenisia* is 3 inches to 4 inches

high. If you send us flowers of these for identification, please let your material be as ample as possible, and do not forget that the basal leaves and stem leaves of many Campanulas are very distinct. *C. cenisia* is a purely moraine plant, found chiefly in glacier *débris* and moraines on limestone. In cultivation it does best in sand and fine gravel with but little soil added. It is by no means one of the easiest, and for gardeners not the most desirable. It is, of course, rare and difficult. In all probability your genial New Zealand climate would not suit it, and it is a success here only with the specialists who study its needs. We sympathise with you over the slug pest. We trap them freely by laying down pieces of wet sacking, under which they take shelter. We do not envy you your specimens "seven inches long." Our smaller ones are bad enough. We would recommend you to war equally against woodlice; they are most destructive. As you have them in "countless millions," it is a marvel choice things are not wiped out altogether, and probably would be were it not that the pests' special food exists in plenty. Boiling water, where it can be applied from a rosed watering-can, would soon reduce their numbers, or a syringe may be used where less room obtains. We are greatly interested by your letter, and hope you will not hesitate to further communicate with us as to your doubts and difficulties.—ED.]

ROSE GARDEN.

BASIC SLAG AS AN AUTUMN DRESSING (F. J. H.).—This is an excellent fertiliser, and is best employed as an autumn dressing. It is one of the best phosphates we can give our Roses, but its value depends upon the fineness to which it is ground, so you should go to a good house for your supply. It should be applied at the rate of 6oz. to 8oz. per square yard.

ROSA LUCENS (G. H. C.).—This is botanically allied to *R. moschata*. It was discovered by Mr. E. H. Wilson, and is likely to prove valuable for hybridising. Neat, erect habit, forming a graceful bush; foliage dense, very glistening; wood reddish brown; practically evergreen, and foliage changes to bronze in winter; very hardy and seeds freely.

ROSE DESCRIPTIONS (G. H. C.).—1, Mme. Constant Souper, Tea (Souper, 1905), deep yellow, shaded peach, an exhibitor's Rose only; 2, Mayflower, Hybrid Tea (R. J. Hill, 1911), creamy white, edged pink, fine stem, free and good for cutting; 3, May Miller, Hybrid Tea (E. J. Hill, 1911), coppery rose, very fine growth, flowers free and good for cutting; 4, Seabird, Hybrid Tea (Hugh Dickson, 1913), pale sulphur, large, loose flower, good stems and a free bloomer; 5, Mrs. Gordon Sloane, Hybrid Tea (Alex. Dickson, 1912), electric copper and salmon, free and good, very showy; 6, Mrs. Hubert Taylor, Tea (Alex. Dickson, 1910), shell pink and white, diffuse growth, but vigorous, mainly an exhibitor's Rose.

PURE WHITE ROSES.—I am trying to make a collection of pure white Roses of the Hybrid Perpetual, Hybrid Tea and Tea varieties suitable for growing outdoors. Unfortunately, very few of those usually so described in the catalogues are free from some colour other than white, as, for instance, Frau Karl Druschki, British Queen and Augustine Guinoisseau. Would you very kindly tell me whether (1) the following are really pure white entirely—Marchioness of Londonderry, Lady Quartus Ewart, The Bride, Simplicity, White Maman Cochet, Souvenir de S. A. Prince, Berthe Gemen, Léon Robichon, L'Innocence, Maid of the Mist, Perle des Blanches, Perfection des Blanches and Irish Beauty; (2) are there any other pure white Roses, other than those mentioned, of dwarf growth and of the varieties stated, suitable for planting outdoors?—F. B., Taunton. [The following reply has been very kindly furnished by "White Lady," who has made a study of white Roses: "Marchioness of Londonderry, dull ivory shade, with bluish tint; Lady Quartus Ewart, creamy white; The Bride, lemon white; Simplicity, old ivory; White Maman Cochet, cream, sometimes edged with pink; L'Innocence, paper white; Souvenir de S. A. Prince, almost uniformly pure white, though not so shining a white as Frau Karl Druschki, it has no tint of pink on the buds; Irish Beauty, pale creamy white. Of Berthe Gemen, Perle des Blanches and Perfection des Blanches I do not know anything except that they are described in the catalogues and by M. Jules Gravereaux as 'white.' Léon Robichon he describes as 'pure white.' Some of the whitest Roses are to be found among the Rugosas. I do not know of any Tea, Hybrid Tea or Hybrid Perpetual so white in the fully open flower as Frau Karl Druschki. The pink streaks on the bud, being on the outside of the petals, quite disappear as the flowers open. Here is a list of some Roses which nearly approach to whiteness, all of which are suitable for planting outdoors: Candeur Lyonnaise, H.P., a large flower, white, with a tinge of flesh; Florence Forrester, H.T., white, with a lemon tinge, the open flowers are quite white; Juwel, H.T., nearly pure white; Mayflower, H.T., creamy white, with tinge of pink; Mme. Jules Bouche, H.T., white, tinted in centre with salmon, opening to white. Mrs. Andrew Carnegie, H.T., lemon, and White Killarney, H.T., creamy white, must be mentioned, but are less white than the others named. Among Tea Roses, Molly Sharman Crawford is white, with a shade of eau de nil, but opens to a purer white; and Mrs. Herbert Stevens, though the buds have a distinct tinge of fawn, becomes almost pure white in the open flower. In the late Mr. Herbert Molyneux's note on 'White Roses' in THE GARDEN for January 22, 1916, he writes: 'Pure white is the rarest of all the primary colours among flowers, and it certainly is so among Roses.' Consequently anyone making a collection of 'pure white Roses' should, I think, be content to grow flowers which

in some stages of their development are only approximately white, otherwise the collection might be a very small and perhaps a not very interesting one. To compare the infinite variety of tints in flowers which may quite legitimately be called white will afford much interesting study. In the 'Répertoire des Couleurs' fourteen sheets are devoted to different qualities of white, and the sheets are subdivided into four shades. At a Daffodil show last April I was admiring what seemed to me the wonderful whiteness of many of the varieties staged, but when I came upon one called Alpine Snow I found that in comparison with the pure and snowy whiteness of this variety the others could not be passed as absolutely white. This shows that 'white' is, after all, only a relative term."—ED.]

ROCK GARDEN.

GENTIANA ACAULIS AND OTHER ALPINES (A. H. L.). We are pleased you find pleasure in wrestling with the likes and dislikes of alpine, and conquest of their difficulties on such lines is educative in the highest degree. *Gentiana acaulis* succeeds in many soils—light loam, Heath-like soil, peat, and stiff red loam with or without lime—attaining perhaps its greater colour brilliancy in stiff red loam. In parts of Ireland it succeeds best grown in peat; at Wisley it is quite happy in the light soil there. We have it now doing well in a like soil. We should not starve it, however, but in your case make an edging or group and give it Banstead loam and old mortar screenings. Firm planting is essential. The present is a good planting-time. Try *Potentilla nitida* in the moraine, or give it moraine conditions. You are fortunate in growing *Gentiana verna* well, and you cannot have too much of it. Try *Soldanella* in equal parts of good loam and peat in cool conditions. The slug pest you should try to eradicate, and it may be materially reduced by laying down old sacks, under which the slug takes shelter at this season. You are probably right that generally the diet given to alpine plants is too rich. Soil richness and soil dampness are great enemies to choice alpine. At the same time, we must always differentiate between the purely saxatile species—those of the rocks—and that other larger company which invariably inhabit upland pastures.

FRUIT GARDEN.

BITTER-PIT IN APPLES (R. G.).—The precise cause of bitter-pit is unknown. The dead spots in the flesh are due to interference with the water supply at a critical period in the growth of the tree, and the only thing that can be suggested to avoid the trouble is the regulation of the water supply by cultivation, &c., during the winter.

A PECULIAR-SHAPED PEAR (J. B.).—The Conference Pear of curious shape is due to failure to become cross-pollinated in the spring. This and a few other varieties, such as Duroseau and Pitmaston Duchess, are able to form fruits without cross-pollination, and when so formed the core does not enlarge nor do the ovules develop their seeds. You may easily prove the truth of this statement next year by enclosing, say, two or three dozen flower-clusters in bags before the buds burst and keeping them enclosed until the petals have fallen, when you should mark the clusters and remove the bags, awaiting results in the full expectation of obtaining a number of seedless fruits. Similarly, fruits produced as the result of summer flowers on Pears and Apples do not produce seed, and most (but probably not all) of the seedless fruits of which one hears are the result either of failure in cross-pollination or of summer flowers. Unfortunately, not all varieties are capable of forming fruits when cross-pollination fails.

MISCELLANEOUS.

SITUATION FOR AN AMERICAN A. W. Gosland.—It is probable that you would be able to obtain a position in a nursery in the United Kingdom, but before coming over it would be wise to write to one of the large firms of nurserymen and make enquiries as to openings, hours of work, wages, &c. We would suggest that an application be made to Messrs. Dicksons, Eastgate Street, Chester, and to Messrs. Clibrans, Altrincham and Manchester. We do not think, however, that it would be wise policy on your part, unless you have a really first-rate knowledge of Rose-growing or some other branch of horticulture, to come over here to take up gardening, for in nurseries by far the greater number of hands are required to do labourers' work.

MILLEPEDES IN A TOWN GARDEN (Pest No. 2).—Trapping the millepedes by burying pieces of Potato or Carrot near their haunts would be a useful measure. These traps could be examined frequently, and the captures killed by dropping them into a little paraffin. You might try the effect of carbon bisulphide also. Make holes at intervals of about 6 feet and 9 inches in depth along the border and pour into each a tablespoonful of carbon bisulphide, covering in the hole immediately. This substance is deadly to animal life, but so long as it does not come into actual contact with large roots is not likely to be harmful to plants. A dressing of freshly slaked lime, forked lightly in, would tend to make the soil less fitted for the millepedes, for they delight in rather sour soil conditions.

NAMES OF FRUIT.—*Greylands*.—Chatley's Kernel.—F. Norman.—1, Wormsley Pippin; 2, probably a local seedling; 3, Hall Doo; 4, Willie Must (Cider Apple). No. 2 is a variety of good promise. Kindly send six fruit of this variety to the Fruit Committee of the Royal Horticultural Society this time next year.

SOCIETIES

ROYAL HORTICULTURAL SOCIETY.

THE meeting on the 4th inst. was quite small, though not without importance. Orchids from Messrs. Armstrong and Brown, Tunbridge Wells, and for which a gold medal was deservedly awarded, were very fine. Carnation exhibits, too, were excellent.

The most remarkable exhibit of the meeting was the gold medal Rose Charles E. Shea, which had been forced into flower from September-started plants. In forced Roses the new-comer is in the nature of a revelation, and we never before remember having seen such quality in a forced Rose in December.

ORCHID COMMITTEE.

Present: Sir Jeremiah Colman (chairman), Sir H. J. Veitch and Messrs. J. O'Brien, W. Bolton, S. W. Flory, C. J. Lucas, W. H. White, A. Dye, Charles H. Curtis, J. E. Shill, J. Cypher, W. Cobb, T. Armstrong, Pantia Ralli, J. Wilson Potter, R. B. White, F. J. Hanbury and R. A. Rolfe.

By far the finest exhibit before this committee was the magnificent group from Messrs. Armstrong and Brown, Tunbridge Wells. Chiefly composed of *Cattleya* Maggie Raphael alba, of which there were some six dozen flowering examples, many of superb quality, the group at right and left was flanked by choice *Cypripediums* and *Laelio-Cattleyas*, a small centre being formed of new *Odontoglossums* and *Odontiodas*. Of the *Cattleya* first named, the varieties Dreadnought and Brilliantissima stood out conspicuously, the broad, pure white, handsomely proportioned sepals and petals a fine setting for the richly coloured lip. As a December-flowering sort, this, with a value of its own, is indispensable to all Orchid-growers. Brasso-Laelio-Cattleya The Baroness Orchidhurst variety is of rich golden yellow colour, a glorious form, whose prettily goffered lip touched with red internally is very beautiful. *Cattleya* Venus Queen of Yellows, *Odontioda* Madeline var. Black Prince and *Odontoglossum ardentillius* were all excellent. *Cypripedium* triumphans and Dreadnought were very fine. *Odontoglossum Blackii* (Rossii x *Pescatorei*), an elegant thing in pinkish white, copiously spotted with crimson, was very charming.

From Messrs. Charlesworth and Co., Hayward's Heath, came *Laelio-Cattleya* Mita, of crushed strawberry hue, with crimson and golden orange lip; the pure white Brasso-Cattleya Queen Alexandra, *Cypripedium Rolfeae*, together with *Cattleyas*, *Odontiodas* and others.

Messrs. Stuart Low and Co., Bush Hill Park, Enfield, had some charming *Sophro-Cattleyas* and *Cattleyas* in variety.

Messrs. Flory and Black, Slough, contributed *Cypripediums*, C. Little Gem being very distinct.

Laelio-Cattleya Serbia variety Bryndir was shown by Dr. Miquel Lacroze, Roehampton. In mauve and crimson it is very handsome.

Messrs. Hassall and Co., Southgate, showed choice *Cypripediums*, C. Leeannum clinkaberryannum, C. Priam, C. Motra and C. triumphans being among the finer things. *Cymbidiums* Capella, C. Pollux (almost white) and C. Motra (fawn and yellow) were very good.

Messrs. Sander and Sons, St. Albans, contributed *Cypripediums*, *Cattleyas* and *Cymbidiums*. *Cattleya* Snowflake was the most charming variety. *Celoglyne* Mooreana was very pure and beautiful.

The *Cypripediums* from R. Windsor Rickards, Usk Priory, Monmouthshire, were a feature of the show and admirably staged. C. Curlew (Beryl x *Fairieannum*), C. J. Cypher (yellow and white), C. Nydia (rose and crimson), C. antinous (white and golden) and C. Pyramus splendens were a few in a superb lot.

Messrs. J. Cypher and Sons, Cheltenham, showed a very fine collection of *Cypripediums*, Golden Fleecer, Eudora (very dark), Tityus, Mrs. F. Wellesley and *Charlestianum* being some of the more important.

FLORAL COMMITTEE.

Present: H. B. May, Esq. (chairman), and Messrs. W. J. Bean, E. A. Bowles, Sydney Morris, R. C. Notcutt, J. Green, G. Harrow, G. Reuthe, J. Heal, J. W. Moorman, T. Stevenson, R. Hooper Pearson, J. Jennings, H. Cowley, J. Dickson, C. Dixon, H. J. Jones, C. E. Pearson, W. Cuthbertson, W. P. Thomson, E. H. Jenkins, W. G. Baker, G. Paul, J. Hudson and R. W. Wallace.

Messrs. Allwood Brothers, Hayward's Heath, surpassed themselves in exhibiting Carnations, a full table of the choicest of these, admirably grown and staged, representing perfection. We hope to give fuller details in our report of the Carnation show next week.

Mr. J. Jenner, Rayleigh, Essex, also showed Carnations well, Mrs. C. Raphael, May Day and White Enchantress being some of the best. The vases of Satin Rose and Triumph were very good.

Mr. G. Reuthe, Keston, Kent, showed Nerines, together with choice shrubs and alpine. *Picea Breweriana* was noted, also *Olearia semi-dentata* and *Pentapterygium rugosum*, a half-hardy subject.

Messrs. W. Cutbush and Sons, Highgate, N., exhibited Carnations very finely, grouping the several sorts adequately and well. Big stands were filled with *Carola* (crimson), *Champion* (scarlet), *Salmon Enchantress*, *May Day*, *White Enchantress* and *White Swan*, the whole attractive and beautiful at this season.

Messrs. Fletcher Brothers, Ottershaw, Chertsey, showed some interesting things *Abies Douglasii* *Fletcheriana* (the Dwarf Douglas Fir), *Aucuba longifolia* *Fletcheri*, green tipped and quite distinct from typical *longifolia*; *Cupressus Lawsoniana* *Fletcheri*, a most elegant plant; and C. L. Pottensii, a seedling of great charm and distinction.

THE GARDEN.

No. 2352.—VOL. LXXX.

DECEMBER 16, 1916.

NOTES OF THE WEEK

THE article on greening and sprouting seed Potatoes in our issue of December 2 has brought forth several letters in support of these practices. The object of greening Potatoes is to strengthen the sprouts, and the practice is so valuable that we regard it of national importance in the present crisis. Owing to a wet season and to the unfortunate state of affairs which led some growers to lift their crops in the rain, the tubers of many varieties are starting to sprout long before their time. Such tubers as are required for seed should certainly be brought to full daylight in a cool room or greenhouse where they can be protected from frost.

Potatoes Under Glass.—Some nurserymen in the Lea Valley have undertaken to risk a loss and make the experiment of producing Potatoes by intensive cultivation. With seed at its present price it can hardly be hoped to pay, but it will, none the less, be carried out for patriotic motives. It is thought that early varieties, like May Queen and Midlothian Early, will be cleared in time to follow with a crop of Tomatoes; but some growers who have already tried the experiment are of the opinion that Tomatoes when used as a following crop to Potatoes are more susceptible to disease.

New President and Parliamentary Secretary to the Board of Agriculture. General satisfaction is expressed in the nomination of two able and experienced agriculturists to the Board of Agriculture—Mr. R. E. Prothero as President and Mr. Charles Bathurst as Parliamentary Secretary. Mr. Prothero is probably best known to the public as Chief Agent to the Duke of Bedford, one of the largest landowners in the kingdom; he is also a member of the Departmental Committee on Home Production of Food, appointed last year. The combined appointments should lead to an enlightened policy in the increase of our home-grown food supply.

The Large-Flowered Protea.—Our illustration of this remarkable and handsome Cape plant is reproduced from an excellent plate in the "Botanists' Repository." It appears under the name *Protea grandiflora* var. *foliis undulatis*, with the following description: "The round tufts of long hair which terminate the inner scales of the cup in this Protea and its varieties constitute its principal distinguishing specific character from

P. speciosa. It is without doubt one of the handsomest of this fine tribe of plants, not only in the beauty of the blossom, but for its general habit, as it does not grow above 3 feet high, very bushy, and producing its flowers at the age of three or four years."

Berberis stenophylla.—The article in THE GARDEN for November 25 on the new and delightful *Berberis rubrostilla* brings to mind that *Berberis stenophylla* was also the result of a chance seedling. Whereas *B. rubrostilla* originated at Wisley, *B. stenophylla*, which many look upon as the finest of all flowering Barberries, was first observed in the nursery of Messrs. Fisher and Holmes, Handsworth, near Sheffield, about the year 1860. It was then regarded as an accidental hybrid

between those two South American species *B. Darwinii* and *B. empetrifolia*. Time has proved this to be correct. *Berberis stenophylla* readily produces fertile seeds, but the progeny, as a rule varies considerably, some showing a leaning to one parent and some to the other.

Nerine coruscans Not Flowering.—We have always regarded this *Nerine* as one of the easiest to flower, but this is not the experience of a reader at Hitchin, who writes: "You have printed several notices lately about *Nerines*. None of them, I think, refers to a difficulty I have experienced with *N. coruscans*. For several years I have grown them, and only once (last year) have I had a flower-spike. They do nothing but multiply their bulbs. I have left them crowded until they have split their pot; I have dried them off; I have planted them out; but the result is the same. I keep them in a not very hot house. Can you give me any hints?" The great point to bear in mind is that the bulbs require a thorough roasting in the sun during the summer. Perhaps our correspondent will kindly send a line to say wherein his treatment differed from the lines laid down by the Rev. J. Jacob on page 609 of this issue.

Aster grandiflorus.—Amid the wealth of modern varieties, the original species of Michaelmas Daisies are apt to be relegated to the limbo of forgetfulness. Generally speaking, this—except on grounds of sentiment—need not be regretted, as the "old order" has changed to the new and better. An exception should, however, be made in the case of *Aster grandiflorus*, a distinct species introduced from North America 196 years ago. Coming into flower in November, *A. grandiflorus* is too late for flowering outdoors; but treated as a pot plant like the *Chrysanthemum* it is a fitting companion for the Autumn Queen, either for conservatory decoration or for cutting. The flowers, which average 2 inches in diameter, are of a bright purple colour. The plant attains a height of 2 feet or more and has a graceful, branching habit, the beauty of which is enhanced by the fact that the foliage is quite small, like that of the *ericoides* class.



PROTEA GRANDIFLORA VAR. FOLIIS UNDULATI.
From the "Botanists' Repository."

* * * Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their news-agent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Campanula Hohenackeri.—The accompanying illustration represents a somewhat elegant and graceful member of the Bellflower Order rarely seen in cultivation, though some few years since an example or two were noted at one of the meetings of the Royal Horticultural Society. According to the "Index Kewensis," it is synonymous with *C. sibirica*, a species having a wide distribution in Siberia, the Caucasus, Hungary, Piedmont, Carniola, &c. Curiously, Don, who in his "Gardeners' Dictionary" deals with many Campanulas, does not mention *C. Hohenackeri*, while remarking that its variety *paniculata* is very like *C. divergens*, which the "Index Kewensis" also makes a variety of the above named. Authorities by no means agree as to whether the plant is biennial or perennial, though Don places both *sibirica* and *divergens* in the latter class. Its not infrequent behaviour is that of taking three years or so to reach the flowering stage, perishing after the somewhat abundant flowering shown in the illustration. This represents the conduct of the only plants of it I remember to have grown. It is also the experience of those who have grown it more recently than I have; hence it is one to be raised periodically from seeds. Culturally it presents no difficulty, and succeeds in well-drained loamy soil. The drooping bells so well shown in the picture are of bluish violet colour and considerable size. The plant attains 1½ feet high or thereabouts.—E. H. JENKINS.

Rhus Toxicodendron in Canada.

With reference to the poisonous character of this plant, it may be of interest to some of our readers to reprint the note by R. J. Ella Baines, Toronto, Canada, which appeared in THE GARDEN some years ago: "Although I have noticed one answer from this side of the ocean to your correspondent on the question of *Rhus Toxicodendron*, I am tempted to add some words upon the subject.

I note that, according to your first correspondent, it is being sold at home as *Ampelopsis Hoggii*. It is no relation to the *Ampelopsis*, though in some points it might at a casual glance be mistaken for one. The *Ampelopsis* belongs to the Grape Vine family, and is represented in the wild state by *Ampelopsis quinquefolia*, whose leaves have from three to seven (but generally five) leaflets, oblong lanceolate and sparingly serrate. *Rhus Toxicodendron* belongs to the Cashew family, and is one of the Poison Sumachs. Its leaves are of three leaflets, are more ovate, downy, notched and sinuate. These questions of botanical accuracy are of moment, for it is important that so noxious a plant as this *Rhus* should not be allowed to pose as a harmless *Ampelopsis*. The poison is not a temporary and light matter like

that of the Stinging Nettle. The rash which it produces over face, hands, arms and legs is of an inflammatory nature, and recurs for three years in some cases. As a doctor's wife I can speak with authority about its very bad effect upon many people's constitutions. My husband's brother and his wife brought trails of it home one day from the woods under the impression that it was the *Ampelopsis*, and their botanical expedition cost them three weeks in bed! We employ people to go and cut it away and root it out when it is found near country houses.—R. J. ELLA BAINES, Toronto, Canada."

Scarcity of Showy Butterflies.—The scarcity, or, in fact, partial non-appearance of the brightly coloured butterflies is by no means confined to North Wales and South-West Scotland.



A LITTLE-KNOWN BELLFLOWER: CAMPANULA HOHENACKERI.

Here in Surrey, where the Red Admiral, the Small Tortoiseshell and, in a less degree, the Peacock form quite a feature of our gardens during late summer and early autumn when *Sedum spectabile* is in bloom, their visitation was limited to a very few of the Small Tortoiseshell, which was, from an ornamental appearance, a great loss. On the other hand, we were troubled with swarms of both the Large and Small Whites, and as a consequence all the Brassica family suffered terribly. In some of the allotments in this neighbourhood the caterpillars made their appearance in such numbers as to nearly strip the young Cabbages of their foliage, leaving only the principal ribs. The pretty little harmless blue butterflies were also more than usually plentiful.—H. P.

THE KAFFIR LILY

(SCHIZOSTYLIS COCCINEA.)

IT is always good to read of that excellent Cape plant *Schizostylis coccinea*. So very few people grow it, or even seem to know it, and yet it is so easily managed and so long-suffering in the treatment and dirty weather it will stand. For the benefit of those who do not know the Kaffir Lily, may I give a brief description, with a note, or rather a query, as to its culture? The leaves are much like those of a *Montbretia* or a *Gladiolus*, but are darker green and less markedly ribbed. The root habit is also rather like that of a *Montbretia*,

though there is no very definite corm. From the current flowering spike there radiate a number of runners which form the flowering spike of the following year. About the end of September the flower-spikes begin to push up from the flat sword sheaths of leaves, and in favourable seasons a good clump will continue to flower until November and December. The flower-spike and the flowers themselves are rather in the nature of a small *Gladiolus*, but the spike is less one-sided and the flowers more regular. In colour they are a clear soft brilliant red, almost scarlet, yet a soft pleasing scarlet, not a hard yellow flame scarlet. The height is from 18 inches to 2 feet. A warm, sheltered, sunny position is generally recommended for *Schizostylis*, and this is what one would naturally expect to suit a South African plant which flowers in late autumn. But on this point it would be interesting to have the opinions and experiences of readers of THE GARDEN. I first met *Schizostylis* some fourteen or fifteen years ago in Messrs. Backhouse's nursery at York. The plants had a splendid bed of rich light loam on the north side of a fairly high hedge, and in this position the flowers always developed well until very late in the year. Again I met the plant in Yorkshire, four years ago in a garden high up above Ilkley, on the edge of the moors, and here again it was in

a very shady position, and was flowering gloriously quite late in November. My own plants here at Stevenage are in a very shady place, under an old Plum tree. I put them there because they had not done as well as I expected in a sunny situation. In spite of frost and every sort of poisonous weather, I have been picking *Schizostylis* for the house and to give away until about a week ago. Then I lifted a few dozen half-developed spikes, together with a number of even more backward plants, and potted them up in a very large pan and brought them into a cool greenhouse. They have not resented the disturbance in the least, and already those spikes which were at a half-developed standstill a week ago are opening brilliantly and well, and the pan gives promise of a succession which should last until Christmas.

or later. This, although it is answering well, is rather rough-and-ready treatment, and the better way to secure late flowering under glass would no doubt be to pot up strong roots earlier in the year, keep them back by standing or plunging the pots in a northern exposure until late in the autumn, and then bring them under glass to flower. Or I can imagine a bed of *Schizostylis* planted out in a fairly deep frame facing north or east would give excellent results late in the year. Has anyone tried this method? But, apart from frame and cool greenhouse culture, it would be interesting and of great value to know what readers of THE GARDEN have experienced as regards sunny versus shady positions for the Kaffir Lily. I think possibly the reason why (if I am right) a shady position suits the plant best is that when the flower-spikes get coated with hoar frost in a sunny position the sun has the effect of causing the frost to "scald" the flowers; whereas in a shady place the hoar

ALWAYS A FLOWER IN THE GARDEN

WHAT a woman asks of a garden is that she shall go to it every month of the year and find a flower therein—a hard thing to ask and difficult to arrange unless the garden be by the sea in the south-western corner of England. There you may see Camellias blooming in the open in January and other rare delights, but inland, or not so far to the southward, these treasures are not easy to find. But there are hardy things that will make a brave show in most places, and of these I give a rough calendar for the year.

In the cold grey days of winter the eye asks for cheering colour; green is the easiest colour to produce then. In a large garden much may be done by planting evergreen shrubs and those with variegated foliage; but in a little plot one must

garden, otherwise January should see its cheerful little yellow flowers.

Winter Coltsfoot (*Tussilago fragrans*), sometimes called Winter Heliotrope, is a delicate and fragrant thing, pale pinkish mauve in colour and delicious in scent, but rather inclined to want a lot of room for its abundant leaves. *Iris stylosa* grows in a wall garden with success and is a thing of beauty.

Christmas Roses (*Helleborus niger*) will flower in the open, but to retain their exquisite purity in this dirty world they need some protection and shelter, a hand-glass for choice. Winter Sweet or Japanese Allspice (*Chimonanthus fragrans*) will put forth flowers on a warm wall. So much for January.

Candlemas Day starts February, often "fair and fine" with "worst of winter coming behind." On the walls is the welcome scarlet of Japonica;

through the orchard grass peer "February's fair maids" the Snowdrops; in stone vases on the terrace walls flame yellow Crocus; purple and white will follow later in the garden beds. There are also several delightful blue flowers, *Chionodoxa Luciliae* (Glory of the Snow) being the most brilliant; *Scilla sibirica* is very deep and rich in hue. Later come Grape and Feather Hyacinths (*Muscari botryoides* and *M. plumosum*). Nor must be forgotten that demurely charming shrub, *Daphne Mezereum*, its thin brown boughs clustered thick with blossoms of deep pink or pale mauve, to be exchanged in autumn for yellow berries almost hidden by neat green leaves.

After February, blustering March; cold winds and strong sun shepherding the advance guard of the noble array of spring flowers which this month shares with April.

Daffodil, Violet and Primrose are three lovely sisters of the spring, beautiful alike in field or garden, and each variety seeming in its special way loveliest of all. Sturdy Brompton Stocks and fragrant Wall-

flowers fill the garden beds. To my mind a long stretch of Wallflowers in full bloom radiates light and heat, and bees think as I do, crowding to enjoy it. These plants begin in March and attain fulfilment in April; the rock plants begin in April and are in full beauty in May. I speak now of flat beds edged with Box and filled in with Rock Cress (*Aubrietia*) of many hues, white Arabis and yellow Alyssum, also Saxifrages, pink and white.

In May come Tulip, Iris, Crown Imperial; herbaceous Lupines send up spikes of blue; the Pæony leaves turn green from crimson brown; the Kerria flaunts its golden buttons against the walls; yellow Jessamine sheds a lovely scent; Banksia Roses, yellow and white, peep modestly from the shelter of pale foliage. Sweetest of all is the breath of the Lily of the Valley.

The flowers of May are many, but the flowers of June are more. Red of Roses, pink of Pæonies, blue, pink and mauve of Canterbury Bells, crimson



THE WINTER-FLOWERING HEATH ERICA CARNEA.

frost is melted off by the higher day temperature, and scalding through the sun striking the frosted petals is avoided.

There is no excuse for not growing this brilliant autumn and winter flower. It is very easy to grow and very cheap to buy. Good roots may be had at about 1s. or 1s. 6d. per dozen, and they may safely be planted at almost any time of year.

Stevenage. CLARENCE ELLIOTT.

ASPERULA HEXAPHYLLA.

THIS is a very desirable species of Woodruff, and can be highly recommended either for filling small vases alone or for mixing with other cut flowers in the same way as the Gypsophilas are used. Indeed, it very much resembles the annual Gypsophila, *G. elegans*, in general appearance, and being a perennial it gives less trouble than that popular favourite. It attains a height of about 15 inches. CALEDONIA.

rely on the blue grey of a bordering of old-fashioned Pinks, on the duller grey of Rosemary hedges, whose stems become a vivid green after autumn rains, and on the pale shading of Lavender and Santolina. These with the bright green of Wallflowers and the deeper hue of Sweet Williams refresh a mind weary with winter's cold, and form a charming background for the scanty and delicate hues of winter flowers.

Foremost among these I place the Winter Heath. *Erica carnea* is the species I have grown, but there are varieties as good or better. It lives in a bed edged with Box and carpeted with rock plants, and shows its pink blooms against the green of *Aubrietia* foliage and the grey of Cotton Lavender (*Santolina*). In the first season of its blooming it was a rich crimson, but succeeding years have only brought blossoms of the colour of Ling. It blooms from November till February. I would like to grow Winter Aconite among the *Aubrietia*, but it refuses to live in this

of Sweet Williams, blue of Delphiniums; a riot of colour in the beds, and on the paths the rich gold of self-sown Saxifrage.

So to the calmer moments of July when summer is getting just a wee bit staid. Chimney Campanulas and Bellflowers give their more sober blue in place of vivid Delphiniums, Balsams bloom, and French Marigolds and the scarlet Lychnis. Clumps of Carnations succeed the "river of white snow"—the white Pinks that edged the long borders. "This is the month when Lilies do blow," but nothing will induce them to blow happily in my garden; why, I know not. Yet I love them all: pure Madonna, fiery Tiger Lily, scarlet Martagon, graceful lancifolium and all the rest of them.

August is like the little pause which comes at the crest of high tide, the level quarter of an hour before the ebb sets out. This is the month when those who have spent hours of care tending and transplanting annuals reap the harvest of their labours. Snapdragons are now abloom and stately Hollyhocks, and the more artificial beauties of Geranium and Begonia. In the spring of 1914 I planted seed of Sutton's Giant Love-lies-Bleeding, and in August of that year it made a glorious picture, a great clump of yellow green leaves and crimson tassels, over 6 feet high, standing against a background of dark Yew. The poignancy of its terrible beauty lives ever in my mind associated with the fighting at Mons and the loss of our first friend to fall in the war, him whom I called the Cid.

September ushers in the autumn flowers, which it shares with October. Anemones, Sunflowers, Red-hot Pokers, Michaelmas Daisies or Starworts, and Phlox in many colours, all these and many another beauty blend in shades of yellow and orange and mauve and white, harmonising with scarlet-tinted creepers on the walls and golden leaves on fading trees. Heliotrope greets you sweetly and modestly and seems as if bent on blooming for ever, till there comes the sad morning when, after a sharp frost overnight, you go to enjoy Heliotrope and find a mass of black, shrivelled stems.

This may not be till November should the season be mild, but after St. Martin's summer I fear for the rest of the year the garden only contains the crumbs that fell from the table of summer's feast. Chrysanthemums may possibly linger, but the chief beauty now to be found is in berries. The best of

these are provided by the Rock Sprays (*Cotoneaster macrophylla* and *C. horizontalis*), whose wee white blossoms shone in the spring; *Ceanothus*, which gave branches of lovely blue flowers in July; Summer Allspice (*Calycanthus*), whose dull crimson blooms showed in August; and several varieties of Barberry and of Thorn (*Crataegus Pyracantha*, &c.). There are some good autumn-blooming Veronicas. Myrtles bear dull black fruits where once were starry white flowers, and in the borders Red Giant Mignonette and the dainty flowers and seed vessels of Love-in-a-Mist, or *Nigella*, defy frost and blossom crisply.

So the year creeps on to Christmastide. Yellow Jessamine (*Jasminum nudiflorum*) and Winter Heath begin to bloom to link the old year with the new, and many a plant that made us gay in spring brings a second offering to make us glad in winter. The Rock Cress shows little sprays of mauve and pink, perennial Wallflowers give a gay patch of yellow in a corner of an old grey wall, a Pansy peeps out shyly, Love-in-a-Mist creeps softly round red-berried *Rosa rugosa*, autumn Violets smell even sweeter than in spring.

Many a flower of summer lifts a reproachful face that I should have

COTONEASTER PANNOSA

It is now nearly a quarter of a century since this shrub was introduced to British gardens, for in 1892 it was received at Kew from France, to which country it was originally introduced by Father Delavay, who sent seeds from Yunnan. An evergreen species, it possesses a graceful and

free habit, with arching branches 10 feet or 12 feet long, made up of numerous slender branchlets clothed with small, oval leaves rarely more than an inch long and half as wide. The flowers are produced, many together, in dense heads in May, and they are peculiar by reason of their extremely hairy or downy calyx lobes and stalks. They are not very showy, for the white petals are very small and fugitive. Later, however, a large crop of fruit is perfected, the berries being red when ripe, but the colour is dulled by reason of the woolly covering. Taken altogether, it is an ornamental plant, and its free-fruited qualities are well represented in the accompanying illustration. To be seen at its best it should be allowed ample space where it can develop freely without being crowded by other shrubs. Regular pruning is not required; in fact, it is better left alone save for a little thinning now and then. Plant in good loamy soil and increase by means of cuttings of half-ripe shoots in summer or by seeds sown as soon as ripe.

W. D.

AUTUMN-FLOWERING SNOWDROPS

In some interesting notes on the autumn-flowering Snowdrops (page 559, issue November 18) Mr. S. Arnott remarks on a habit which I have also noted, *i.e.*, that these so-called autumn-flowering species, although flowering in autumn when first imported, tend to become progressively later under cultivation in our climate. The one that I have had most to do with has been *Galanthus cilicicus*, which has been in cultivation here for many years past, and from which I have raised numerous seedlings.

Although flowering in early November when first imported, this and its seedlings have now acquired a regular habit of blooming about Christmas-time, when they are very welcome when grown, as they are here, in frames, or in pots and pans in a cold house. *A propos* of autumn-flowering Snowdrops, I was told an amusing story the other day by an eminent gardener after whose name the mystic letters "V.M.H." appear. It was of an acquaintance who possessed



COTONEASTER
PANNOSA.

left its name unmentioned in the calendar of the year, but between the Daisy and the Rose are crowds of flowers, and none can count them all.

It is Christmas now; the Holy Thorn prepares to open its pale buds at the Epiphany, and a West Country girl always expects to find a Rose in the garden to wear on Christmas Day.

S. HOPE EVANS.

an unusually late flowering Snowdrop. When originally received by him from abroad it had opened in autumn, but had become a fortnight later each year, until it ended by being the latest-flowering Snowdrop in his garden. The incident had no doubt been exaggerated to make a good tale, but probably possessed an element of truth in it.

Rye.

F. HERBERT CHAPMAN.

MICHAELMAS DAISIES

BY EDWIN BECKETT, V.M.H.

[In Answer to Correspondents.]

I AM glad to know that my short article on the above, page 573, issue November 25, was appreciated by so many readers of THE GARDEN, and with pleasure I will briefly refer to one or two matters on which queries have been raised.

Hybridising and Raising New Varieties.—

This requires much care and attention if one hopes to bring out something startling in the way of novelties, and I met with much disappointment when I first attempted this. I was assured by many who were supposed to know that it would be impossible to effect a satisfactory cross between many of the various species. I must confess that in attempting such in some cases I was unsuccessful, but in others quite the reverse, and it was only by patience and perseverance that I effected and raised some of our most important novelties. I see no reason why this cannot be effected still further if anyone who has the time and love for these will take it seriously in hand.

Great care should be taken to fertilise the flowers immediately they are ready for such treatment, and the flowers must be protected from bees and other agencies. We usually use coarse gauze for this purpose. Some of our most successful crosses have been made by growing in quite a cool house a few plants in pots of the varieties and species required, when fertilisation is much more easily and successfully carried out. Seed should be sown immediately it is ripe, and be raised in slight heat, pricked off when ready, grown on in cold frames, and planted out at the end of April. These should all flower the same season, except the Amellus type, which takes two years. All worthless varieties should be immediately pulled up and destroyed, and only the very best reserved for another season's trial. These latter should be parted and planted in the ordinary way in the spring.

Dividing the Plants.—This is much best effected in the spring of the year. The smallest pieces, planted at that season as a rule make the best specimens by the following autumn. These will generally push forth several growths, especially the Novi-Belgii and stronger-growing species, and these should be reduced to three, or five at the most, as overcrowding is fatal to good results.

I am afraid it is impossible to name any one grower in the trade who catalogues the whole of the varieties mentioned, but any good specialist in Michaelmas Daisies would probably be able to procure even those varieties he does not list.

PÆONIA EMODI

BY R. IRWIN LYNCH, M.A., V.M.H.

THIS is a very beautiful and distinct Pæony with pure white flowers. It is most nearly allied to *P. albiflora*, but differs in the deep green leaves. They are distinctly different, apart from greenness, though colour is a good and convenient character, as the leaves of *P. albiflora*, however white the flowers, appear invariably to be ruddy. Another distinct difference is in the carpels. Those of the present plant are one to each flower, rarely two, and tomentose; while in *P. albiflora*, so far as I have seen, the carpels are glabrous, though pubescent in bud, and they number from three to four.

The above Pæonies, *P. Emodi* and *P. albiflora*, naturally group together as distinct from all



PÆONIA EMODI. FLOWERS PURE WHITE.

other Pæonies, and the group is well marked by the feature of more than one flower to a stem. The stronger stems may always be expected to produce more than one flower, while in other Pæonies more than one flower would be abnormal. I believe I have seen but one example, which I found in the Herbarium of the Muséum d'Histoire Naturelle in Paris. I believe it was some form of *P. peregrina*. When studying Pæonies some few years ago there was not, I believe, a single example in the Kew Herbarium of more than one flower to a stem, save it would be in the species *Emodi* and *albiflora*. There is a very good figure of *P. Emodi* in the *Botanical Magazine*, t. 5719. It is supposed to represent Wallich's plant, but in the "Index Kewensis" *P. Emodi* (Wall. Cat.) is referred to *P. anomala*.

The plant here illustrated and the plant of the *Botanical Magazine* (which are the same) are altogether distinct from *P. anomala*, which falls easily among the species that have narrowly divided leaves. Pæonies can only be understood with the assistance of cultivated plants, but, indeed, there are many plants that require to be cultivated before they can be understood. Flowers of *Pæonia* in the sub-genus *Pæon*, it may be interesting to remark, do not afford characters by which to go very far. By characters of the carpel some closely allied species have been separated and others not related brought together. They are liable to vary in the same species. As I have mentioned that deep green leaves serve to distinguish *P. Emodi* from *P. albiflora*, I should say also that the older leaves of *P. Emodi* may become bronzy or even red, but the colour, all the same, is quite distinct from that ever found in *P. albiflora*.

The cultivation of *P. Emodi* is not difficult. The specimen illustrated was taken from a plant growing on a narrow border against an east wall. It is native of the Himalayas, and Himalayan plants are sometimes liable to injury in the spring; but this plant, I think, has never suffered. I have an ally of *P. officinalis* with white flowers, once sent me as *P. Emodi*, that is distinctly tender in a similar position. What this is I have yet to discover. It is quite distinct from all other species in cultivation, and some years ago was not, I believe, in the Kew Herbarium.

CAPE SPECIES OF OXALIS

How seldom one sees the Cape species of *Oxalis* grown for winter flowering, yet how beautiful they are and how easily managed. A row of pots standing close to the glass on the southern stage of an unheated house provides a brilliant bit of colour when the sun shines. There are the large white flowers of *O. variabilis*, as large as florins, and well set off by the deep green Wood Sorrel type of leaves. By their side, equally large, soft yellow flowers peep out among the curious bean-shaped leaves of a variety of *O. asinina* that comes nearest to the plate of lancea-folia in Jacquin's beautiful monograph of the genus. Larger still are the brilliant cerise flowers of *O. purpurata*, widely known as Bowiei. It is a very fine plant and hardy enough to live in the open, and flowers in October, but, of course, outdoors it gets cut down by the first severe frost. *O. hirta* is a very different-looking plant, for it has tall stems clothed with trifoliate leaves that look much like the seedlings of some *Cytisus*, but from the axils of the lower leaves spring the large, dazzling cerise flowers. *O. versicolor* also grows with a stem, but its leaves are gathered into tufts, near its summit and have such long and narrow leaflets that they look like birds' feet. The flowers are white, with crimson edges to their under sides, and when in bud, or rolled up on dull days, are striped spirally with this bright crimson on a white ground, after the style of peppermint sweets. The last that I have now in flower is *O. bifida*, very slender in stem, branching a good deal and bearing tufts of small Clover-like leaves and many flowers, rather more of a magenta shade than the other cerise forms, but very cheerful to behold in winter. Few nurserymen stock these beautiful plants, and though I should like to grow more kinds, I do not know where to get them. Can any kind reader tell me?

Herls.

E. A. B.

TUMOUR OR WART DISEASE IN POTATOES

BY F. J. CHITTENDEN, F.L.S.

THE most disquieting feature of the disease of Potatoes variously known as tumour, black scab, and wart disease is its steady spread in spite of official measures of control. It first made its appearance in Cheshire at the end of the last century, and soon became increasingly prevalent there and in the Liverpool district. It was heard of in Wales in 1902 and in Nottinghamshire in 1903, while by 1907 it had found its way to Scotland. It had become so serious by that time that the Board of Agriculture made it one of the chief duties of the newly constituted Horticultural Branch to devise measures for its control, and an Order was issued making it a notifiable

a crop, indeed, the potentialities of which have hardly yet been realised here.

Doubtless the restrictive measures imposed by the Board have impeded the progress of the disease. How far they have done so cannot be measured, but that the organism which is its cause has been able to evade the utmost vigilance of the inspectors and to creep through gaps in the fences erected to restrict its advance is evident. And, indeed, in many cases these gaps cannot be stopped. One thing, however, stands out before all others in the history of the disease. The experimental work carried out in connection with it has, as was, after all, only to be expected, been far more productive of promising results than all the restrictive measures that have been imposed, and they have doubtless cost far less.

The causal organism lives in the soil. It is astonishingly resistant to the ordinary methods of soil treatment. Experiments so far carried out have shown that none of the ordinary methods of dealing with soil pests can be relied upon even to check this, less still to exterminate it, when once it has invaded an area. It seems capable of living for many years in soil without Potatoes or allied plants to support it, and thus it outlives all ordinary rotations in the fields as well as those shorter ones compelled by ordinary

them, as well, no doubt, as Potatoes—so that when once the disease had made its appearance on ground which was subsequently used for raising these seedlings for sale or friendly gift, the spread of the spore-containing soil was inevitable. The tenacity with which the spores hold to life made the rest easy. Now Mr. Malthouse has proved that this is the correct explanation. It accounts for the spread of the disease over comparatively compact areas and occasionally to more widely separated ones.

The great achievement of the experimental method so far (alas, that it should have been an empirical one!) has been the discovery of varieties that resist the disease completely. [We hope to publish the list of immune varieties in our next issue. — Ed.] This discovery has enabled crops of Potatoes to be grown on land so badly infected that no crop of a susceptible variety could have been obtained. So far, so good. Yet the mere fact that Potatoes may be so grown has increased the danger of the spread of the disease. It is certain that even if the cultivation of Potatoes had been entirely prohibited on infected land, the disease would still have spread. Nothing but the complete prevention of the movement of crops and soil, even that which may be attached to tools and boots and the feet of birds, or carried by wind or water, could have stopped it. Unfortunately, these disease-free Potatoes cannot be distributed without carrying some of the infected soil with them.

The growers of such Potatoes in infected areas are debarred from selling them for seed, but the tubers cannot be followed to the houses of the consumers. Who among the latter will know that the soil on the Potatoes they have bought for consumption is infested with the microscopic spores of *Synchytrium endobioticum*? Who can blame them if they save some tubers of a variety which pleases them and grow them? What becomes of the water used in washing the tubers? Where do the peelings go? Nothing is more certain than that much of the infected earth will go to the garden and especially to the garden of the cottager, and in years to come prove a source of infection to other non-immune varieties planted on the same soil.

We shall all want immune varieties before long. Unfortunately, several of those already in existence are poor croppers or bad cookers, or undesirable for some other reason, and there is room for other and better ones. It is fortunate that recent research in plant-breeding has shown the lines along which success in raising new immune varieties may be hoped for. It is clearly not the duty of the Board of Agriculture to raise such new varieties, but it is to be hoped that the Board will encourage such research as is necessary and the educational work that will secure the knowledge of the discoveries made being widely disseminated and made use of. In no other direction than these could its energies and funds be so profitably directed.

POTATO EDINBURGH CASTLE

THIS pedigree seedling was sent out by Messrs. Sutton and Sons in the spring of 1913. When lifted in July of this year I found a huge crop of shapely kidney tubers, excellent in flavour when cooked, quite floury, and attractive in appearance. I shall certainly hope to extend my area of this variety in the future, as I am positive it is one of the best of second-earlies. E. M.



POTATOES ATTACKED BY WART DISEASE.

disease, inspectors were appointed, and a certain amount of experimental work was encouraged.

In spite of that and subsequent Orders concerning the disease it has spread widely, and is still spreading. It is far more prevalent in the North, in Scotland and in the Midlands than elsewhere in the country, but it has reached the South, and there seems no reason why it should not spread there as it has done in the North. Its march seems relentless in spite of all the legal forces opposed to it. It seems to have landed invading parties at some of our ports, and they have established themselves beyond eradication. It has descended upon isolated areas, and these are likely to become centres of further invasion. It is an active menace to all Potato growers. It has already reduced our Potato output; it has been the cause of restrictive measures upon our Potato export; it may go further and injuriously affect all over the country the vegetable that, more than any other, is the usual accompaniment of the poor man's meat; it might, unless measures are adopted to avert that catastrophe, reduce to a minor place our second most important crop,

garden practice. Mr. Cotton has shown how it may tide over even longer periods by invading the tissues of the Bittersweet and the Black Nightshade. True, the former is generally found only in copses and hedges and is not likely to prove a serious source of trouble, and the latter is a more common weed of cultivated land in the South, where the disease is at present less prevalent than in the North. But when the disease becomes more common in the South than now—and it certainly will—the Black Nightshade may be a potent factor in enabling it to maintain its hold. The fact that this weed is rarely found in Potato fields is no bar to its acting as an alternative host for the fungus.

A peculiarity of the disease has been the greater frequency of attack in allotment gardens, especially in the neighbourhood of large towns, than in farms and gardens in country districts. This fact has intrigued the minds of a good many, although the probable explanation seemed simple to others. It is that there is a great deal of interchange of plants among these gardens—Cabbages, Onions, Celery, Lettuces, and so on which carry soil with

NERINES

BY THE REV. JOSEPH JACOB.

FROM one or two straws that have come my way I am disposed to think that lovers of beautiful flowers are inclined to "bite" at Nerines. Requests have reached me to write something about their treatment. August and September are the usual months when the family show signs of waking up. They do not rub their eyes, but they put out their tongues. Little reddish or brownish green pointed bits of life appear out of the old withered top. Arguing from analogy, unless one knew pretty Fanny's way, the signal might well be taken to mean "I think"; but, as hats on and hats off may equally be signs of devotional respect, so tongues out have in the Nerines a topsyturvy meaning of pleasurable satisfaction, telling us our care is about to be rewarded and suggesting that a drink, now the time of prohibition is over, would be most acceptable. This is, as it were, the beginning of the plant's year; hence it follows that it is the best time to purchase. Dealers will usually pick out those that are going to flower to send to their customers if they are asked to do so.

We will now follow their treatment. When the flower-stem is growing and until the blooms fade, we give a sufficiency of rain-water to keep the roots comfortably moist. When the flowers have faded and leaf-growth begins, we commence to feed. For a fortnight or three weeks we give weak waterings of Clay's Fertilizer or diluted cow-manure; then we change to very pale soot-water for a similar period; then Clay's Fertilizer or cow-manure again, and so on until towards the end of March or early April, when the yellowing of the tips of the leaves signifies "fed up." We then go to clear water again, which is given in diminishing quantities until the time comes that the foliage is wholly yellow, when it is entirely withheld. During this period, November to April, we try never to let the temperature, even on the coldest night, fall below 40°, while we give all the air possible on warm, sunny days and a modicum at all times except when high winds and extreme cold prevent it. Even at night we leave "just a crack" whenever it looks promising enough to do so.

In May we leave the plants on the greenhouse staging (I ought to say that the whole of one house is given up to them) or remove them to a boarded frame with a southern exposure. Here they remain, dust dry and fully exposed to the sun, until the end of July. Repotting and cleaning up and top-dressing are then taken in hand.

The best compost for Nerines is good old turfy loam lightened with coarse silver sand and very old cow-manure which has gone to dust. Plenty of drainage is necessary, and on no account must they be overpotted. A 4-inch pot will hold the very largest single bulb. Many of my single bulbs have but 3-inch pots. It is only when three or more are put into one pot that larger sizes are used. Top-dressings of the same old turfy loam should be given whenever it seems requisite, but as the bulb must not be buried any deeper, it follows that a portion of the old soil must be scratched up and taken away. At this period, although to all outward appearance the bulbs look plump and firm, the first touch reveals a decided shrinkage of their substance. The outer

coats are now invariably several sizes too big. A practical question over which there appears to be a little uncertainty is this: Should these loose coats be removed or left on? My invariable custom is to take them away, thereby, I believe, avoiding future damp and practically doing away with any chance of mealy-bug or any other insect pest getting a foothold. With this August cleaning the yearly cycle of our Nerines is ended, and once more we are all expectancy waiting to see how many thirsty little tongues will emerge from the now smartened-up bulbs.

NEW AND RARE PLANTS

FIRST-CLASS CERTIFICATE.

Brasso-Lælio-Cattleya The Baroness Orchid-hurst Variety.—Than this handsome bi-generic hybrid probably nothing so beautiful in colour or so well proportioned has ever been shown. To these good attributes refinement in the highest degree must be added. The sepals and petals are golden, the latter broadly ovate and slightly undulated. The lip is of paler tone, deep primrose at the margin, where it is elegantly ruffled or crimped; fuller yellow elsewhere, and with just a touch of rich red painted in the throat, its nearly circular outline a mark of rare distinction. It came from Messrs. Armstrong and Brown, Tunbridge Wells, the home of many present-day Orchid novelties.

AWARDS OF MERIT.

Cypripedium John Cypher (C. antinous × C. Leeannum).—It goes without saying that the combined influence of two such parents should have produced a hybrid of importance and distinction. In pouch and petals the great leaning is to the first named, the handsome dorsal petal showing the influence of Leeannum in marked degree. A superbly balanced flower throughout. It is named in compliment to Mr. John Cypher (Messrs. Cypher and Sons), who has been assiduously hybridising Cypripediums for many years.

Cypripedium Chardwar.—A Euryades hybrid of exceptional quality and richly spotted. The pouch and petals are of a polished chestnut red, the great dorsal petal, which is also finely shaped, being copiously spotted. These two were shown by R. Windsor Rickards, Esq., Usk Priory, Monmouthshire.

Chrysanthemum Joan Maitland.—A dwarf-growing decorative variety of rare colour distinction. The florets are drooping, coloured a deep chestnut red, with more than a suspicion of dark bronze. In the chestnut red class it is the most distinct variety we have seen for some time. It should be in every collection. From Mr. G. Carpenter, West Hall, Byfleet, Surrey.

Cupressus Lawsoniana Pottensii.—The neatest and most elegant form of Lawson's Cypress we have seen. In outline an attenuated pyramid, it is slightly glaucous, of dense habit, and unusually soft to the touch. It is said to be perfectly hardy. A fine example 8 feet or so high was well furnished throughout. From Messrs. Fletcher Brothers, Ottershaw Nurseries, Chertsey.

Odontoglossum Doris Orchidhurst Variety and **Odontioda Madalene variety Black Prince**, novelties from Messrs. Armstrong and Brown, each received a preliminary commendation card.

The foregoing novelties were before the Royal Horticultural Society on December 5, when the awards were made.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

Plants Under Glass.

Malmaison Carnations.—Layers which were potted during September into large 60-sized (4-inch) pots have rooted well, and are ready for transferring to 32-sized (6-inch) pots. As a potting compost use fibrous loam, mixing in a little leaf-mould, wood-ashes, bone-meal and finely broken mortar rubble and broken crocks. Fairly firm potting is necessary. Previous to potting see that the balls of soil are moist, so that watering will not be necessary for a few days. For the next two months very careful watering is essential, while it is preferable to keep the plants a little on the dry side. When water is required, give ample to soak right through the balls of soil. Ventilate freely, and only maintain sufficient heat in the pipes to dry the atmosphere of the pit or greenhouse.

Primulas.—In a greenhouse with a night temperature of about 50° varieties of *Primula sinensis*, including the Star section, are opening their flowers freely. Soot-water, weak liquid cow-manure and a little Clay's Fertilizer are valuable stimulants to improve the plants and prolong the display of bloom. Similar manures will increase the blooming of *P. kewensis* and *P. obconica*, the plants of which last better in a house a few degrees lower in temperature, or, failing this, select the cooler end of the structure.

The Flower Garden.

Dressing Lawns.—The fact that lawns benefit or require manure of some kind to maintain a rich green sward year after year is sometimes overlooked. From spring to autumn grass is cut from the lawns, and it is desirable to do something to provide nutriment to maintain the grass in the best condition. Perhaps the most generally employed soil is the rotted material from the refuse heaps and wood-ashes from fires which are constantly necessary to dispose of rubbish in large gardens, soot and lime being sometimes incorporated previous to giving a thin, even dressing. The present is a good time to do this work. Winter rains, frosts and winds all assist in decomposing the dressing. Raked over several times on dry days at suitable intervals, little will remain in early spring unless it be a few stones, which must be brushed off previous to rolling. A useful and easily applied fertiliser for lawns is 7½ lb. of basic slag and 5 lb. of kainit applied now, and 7½ lb. of superphosphate of lime and 2 lb. of sulphate of ammonia in spring. Mixed with about double its bulk of fine soil to aid in evenly distributing it, this is a sufficient quantity to dress 100 square yards of lawn.

Standard Rose Stocks.—Secure by purchase or, if conveniently placed in country districts, obtain from the hedgerows Briar stocks and plant for next summer's budding.

The Kitchen Garden.

Peas.—Autumn sowings are now well through the ground and require careful watching. In addition to a little earthing up on either side of the rows to provide some shelter from winds, wire guards will be required to afford protection from birds, and lime or soot to keep away slugs and snails. Those who do not favour autumn sowings should sow seed about this date in pots or shallow boxes, placing these in a frame, pit or cool greenhouse. Nothing is gained by hastening germination and growth with excessive heat. The aim should be to secure sturdy plants by keeping them near the roof glass in a cool temperature.

Lettuce.—In a greenhouse make a sowing of the variety All the Year Round or a similar sort. As soon as the young plants are nicely through the soil, place them on a light shelf in a cool greenhouse. If sown thinly, the young plants may remain in the boxes until sufficiently advanced for planting in a frame on a mild hot-bed.

Potatoes.—For early planting select good tubers and place them in shallow boxes, standing them in a comparatively light, frost-proof shed to green. Retain only two or three of the strongest growths on each set.

Kew.

A. OSBORN.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Cucumbers.—A sowing should be made about this time to provide plants for setting out early in the New Year. Sow the seeds singly in small pots and germinate them on a slight hot-bed in the propagating-house. Place sheets of glass over the pots to prevent mice from destroying the seeds, allowing a small space for the escape of condensed moisture. When the young plants come up they must be brought gradually into more airy conditions, subsequently placing them on a shelf near the glass. Those plants that are showing fruit at the present time should be given a little stimulant at intervals, and spread a light top-dressing of rich soil over the bed as often as the surface roots make their appearance. Air should be given the Cucumber-house with great caution at this season, and a night temperature of about 70° maintained.

Tomatoes.—Seeds of these may also be sown at this season to succeed the winter batch. Plants in fruit should have warm airy conditions afforded. The fruits should be gathered as soon as they commence to colour, and if placed on a warm, dry shelf they will mature better and become firmer than if left on the plant.

Carrots.—Small early Carrots are usually in demand, and a frame over a hot-bed of litter and leaves should be prepared, sowing the seeds broadcast as soon as the heat has penetrated the soil. Cover the frame with mats at night to conserve the heat. As the fermenting heap subsides and the heat begins to decrease, a fresh layer should be placed all round the frame up to the level of the lights. Only the earliest Horn varieties should be sown at this date.

Radishes.—These can be treated in the same way as Carrots. Some growers sow both together on the same hot-bed; the Radishes maturing quicker, they can be drawn out, leaving the Carrots to develop. I have also seen these grown successfully on the border of an early started vinery.

Chicory.—Place some roots of this in a dark, moist corner of the Mushroom-house. These will soon develop growths, which will be much appreciated as a salad.

Fruit Under Glass.

Fruit Trees in Pots.—Those plants in preparation for forcing should be examined to see if they require any more protection from frost. The pots should be covered with a good depth of leaves or Bracken, for, if frost penetrates the balls of soil, the pots will be destroyed.

Early Figs in Pots.—If an early crop of these is desired, the pots should now be moved to warmer quarters. A mild hot-bed in which the pots can be plunged suits the earliest crop well, and root and bud action is soon apparent. Very little damping from the syringe is required at this season; the moisture from the hot-bed keeps the conditions right. The temperature of the house may be kept about 55° at night to commence with, allowing a considerable rise during the day in fine weather.

Vines in Pots.—The Vines for the earliest supplies are now commencing to move, but these should not be hard forced at this season, remembering that a gradual rise of temperature is essential all the time up to the colouring period, so that if the temperature is allowed to rise too much in mild weather it is difficult to keep it progressing through a severe February and March, the former month having the record for a low temperature.

Plants Under Glass.

Carnations.—Suitable cuttings of Perpetual-flowering Carnations should now be got in as soon as they can be obtained in good condition. Place them singly in small pots filled with a light sandy compost and plunge them in the propagating-frame. Wipe the under side of the glass daily, or the moisture will gather and fall in drips, which is detrimental to their well-being. Malmaisons require very little water at this season. See that the roof is drip-proof and that no water is allowed to lodge about the hearts of the young plants. Keep the house cool and fully ventilated, unless during hard frost or fog, and fumigate in the event of green fly making its appearance.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

ANSWERS
TO CORRESPONDENTS

TREES AND SHRUBS.

PRUNING HYDRANGEAS (M. R.).—*Hydrangea paniculata* is usually pruned back rather severely about February, although it can be pruned any time between the fall of the leaves and the end of February. Some people prune it again in June, when the young shoots are a few inches long. This pruning is simply to restrict the number of flowering branches, the poorer ones being removed so that all the strength of the plant may be concentrated upon the perfection of a limited number of inflorescences. *H. Hortensia* may be pruned now, but be careful to leave a number of young shoots their full length, otherwise next year's flowers will suffer. The previous season's wood of *H. paniculata* can be cut back to within two or three eyes of the base.

THE GREENHOUSE.

CHRYSANTHEMUM CUTTINGS (B. E. H.).—In order to induce the formation of suckers available for cuttings, the plants should, after flowering, be cut down to within a foot of the pot and stood in a good light position in an airy greenhouse. They must be kept cool, yet at the same time free from frost.

SUBSTITUTE FOR LEAD PAINT FOR GREENHOUSES (T. W. L.).—As far as our experience extends we do not know of any efficient substitute to take the place of lead paint for greenhouses. The removal of old paint, too, is a costly job. Creosote must on no account be used in the inside of a structure, as the fumes therefrom would be harmful to plant life. Again, if on the outside of the house creosote is used, the water from the roof will be injurious. The use of top putty is not to be recommended, as it is apt to part from the wood and thus allow the water to enter. The result of this is that in the event of frost the top putty is forced quite out of place and the roof is no longer waterproof. The better plan, and that more generally followed, is to bed the glass in rather soft putty, which should be trimmed off quite level with the glass. Then, by using paint of a somewhat thick consistency, a watertight roof is ensured. It will be found that a roof glazed in this way can be painted in much less time than when top putties are used. What is more, even if unskilled labour is employed, a much neater job can be made of it than when top putties have to be painted over.

CHRYSANTHEMUMS UNSATISFACTORY (D. W.).—The major portion of the potting compost should consist of good fibrous loam, to which a little sand and thoroughly decayed manure should be added if available. By no means spray the plants with water when taken into the greenhouse. If the greenhouse has been kept close and the atmosphere moist after the plants are taken therein, it might account for the leaves going worse, but in our opinion the primary cause of the trouble is the condition of the roots. Spraying with sulphide of potassium will keep the rust in check, but it will not restore the leaves to their normal condition. The only thing we can recommend is, as soon as the flowers are over, to cut the plants down and burn all the stems and leaves. Then stand the cut-down plants in a good light position in the greenhouse and take care not to overwater. When the new shoots, which will in time develop, are sufficiently advanced, they may be taken off as cuttings. Dribbled into pots of sandy soil they will soon root if placed on the greenhouse stage and covered with a handlight or small frame.

TREATMENT FOR VINES WHICH PREVIOUSLY HAD HEAT (Miss K. R.).—Black Hamburg Grapes can be grown successfully without fire-heat, but it requires more or less expert knowledge on the part of the grower as well as careful and vigilant attention. The main thing to attend to under this system of successfully growing the Vine is the conservation and husbanding of all possible sun-heat. To do this means the careful and judicious use of the ventilators. For instance, to start the day with in spring, when the Vines are starting into growth, towards 7 a.m. on a fine morning you will probably find the temperature rising to about 57° Fahr. You may then slightly open the back ventilators (do not open the front ventilators before the end of April, as draught will be caused, which at this time is injurious to the young foliage). Open a little more as the sun gains power, but do not open too wide at that cold time of the year. Aim at a maximum temperature of 70° at the middle of the day and 50° to 53° minimum at night. In the afternoon of bright days close the ventilators at 3.30 p.m., having previously well damped the floors and walls of the vinery by syringing. By doing this the temperature for an hour or two may be forced up to 80° or 83°. That will be all right; it is what is wanted in the middle of a fine day, and the heat thus conserved will keep well up until the evening, and in calm weather more or less well into the night. We hope this will give you an idea of how to conserve natural heat and its importance as a factor in the growth of the Vine without fire-heat.

ROSE GARDEN.

BASIC SLAG FOR ROSE-BEDS (F. J. H.).—The autumn or early winter is the best time to apply this excellent phosphatic fertiliser. Soil that has become soured by manure should be dressed with basic slag and the manure withheld a year, but all Rose-beds would benefit

by an application. Apply the slag at the rate of 6oz. to 8oz. per square yard, and have it hoed into the soil at once. In preparing new Rose-beds we like to give some of this material, applying it to the lower foot of soil as the work of trenching proceeds, and when the plants are planted dust around each a handful of bone-flour, covering this lightly with soil.

FRUIT GARDEN.

PRUNING FIGS (Mrs. D. G.).—The proper time for pruning Fig trees growing under glass is in summer. This consists in preventing the shoots becoming overcrowded by cutting out to their base the thinnest and weakest of them, and by stopping all the young shoots left as soon as fine new leaves have been formed. (Stopping means the pinching off of the heart on top of the shoot.) This seen to, there will be little or no winter pruning to do. In your case, the only thing you can safely do now is to cut out to their base any thin or weakly shoots there may be; that is to say, if you think the trees are overcrowded with shoots, not without. The shoots which are left will be the bearing shoots, and they must not be touched by the knife.

KITCHEN GARDEN.

MUSHROOMS UNDER STAGES OF GREENHOUSES (R. I. L.).—It should take about three weeks to prepare the manure by making into heaps to ferment; then open to let out rank steam, re-form and open again when hot, and re-form again. The next time it is opened will be to cart or wheel to form into a bed. After the bed is formed, the heat will rise for a matter of about ten days. Spawning must be delayed until the heat is on the decline, say, down to 75° Fahr. After spawning, it is usual to wait until the spawn is seen to slightly spread into the manure. This usually takes about a week. The bed will now be ready to be cased with loamy soil in the usual way, and should be covered over with littery straw, mats, &c. A temperature of from 55° to 58° Fahr. should be maintained on the surface of the bed. Uncover in five weeks time, and Mushrooms should be showing; water gently, with tepid water, through a rose-spouted can. Re-cover with fresh litter, and look out for a good picking in about eight days. A good bed should continue in bearing for six or seven weeks. The bed must be protected from water dripping from the plants above.

MISCELLANEOUS.

GARDEN NETTING (H. N.).—The netting used in gardens is usually old fish netting, and is rarely, if ever, manufactured solely for garden use. It is usually supplied by firms of garden sundriesmen, who obtain it from dealers. We do not know where you would secure suitable string or instruction in the manufacture of netting.

GOLDFISH IN OUTDOOR TANKS (Mrs. T.).—Gold fish have been known to exist for a number of years in outdoor tanks and pools, but it does not say that they always escape injury from cold. A good deal depends upon the size of the tank or pool and the severity of the frost. Should an ordinary winter be experienced, it is probable that the goldfish will pass through it safely, but in the event of a prolonged period of severe frost occurring, they will probably be killed.

NAME OF FRUIT.—*Vestry*.—Wellington syn. Dumelow's Seedling.

SOCIETIES

EAST ANGLIAN HORTICULTURAL CLUB.

At the November meeting of this club Mr. Edward Peake gave a very interesting discourse upon the important subject of herb-growing. Mr. Peake is himself a botanist of local note and also a member of the local herb-growing association committee. He ably enumerated those which were of the more important value and which could be grown in the district. He urged the members to assist in making good what one might term a national deficiency.

After a good discussion it was agreed that the members of the club should be provided with one or two subjects to grow, and that they co-operate with the Herb Growing Association in collecting, drying and disposing of them.

There was a fine collection of exhibits, the fine fruits of Grapes, Pears and Apples staged by Mr. W. Shoemith, gardener to F. W. Harmer, Esq., Cringleford, being very meritorious.

SCOTTISH HORTICULTURAL ASSOCIATION.

The monthly meeting of the Scottish Horticultural Association was held in the Hall, 5, St. Andrew Square, Edinburgh, on the 4th inst. The chair was occupied by Mr. W. G. Pirie, the president. An excellent paper on "The Cultivation of Violets" was read by the secretary, Mr. A. D. Richardson, in the absence of the author, Mr. R. Staward, Panshanger Park Gardens, Hertfordshire.

The exhibits included some Violets from Mr. R. Staward, showing the excellence of the flowers cultivated by the methods he advocated in his paper. Messrs. Dobbie and Co., Edinburgh, exhibited Chrysanthemums and Perpetual-flowering Carnations; and Mr. Smale, Blackford Park Gardens, Edinburgh, showed the Himalayan plant, *Lindenbergia grandiflora*.

THE GARDEN.

No. 2353.—VOL. LXXX.

DECEMBER 23, 1916.

NOTES OF THE WEEK

WOMEN gardeners will be interested to know that the United Horticultural Benefit and Provident Society is considering the advisability of accepting women members. The society is a very sound one; it has a State side, in connection with the National Insurance, and a private side which gives benefits in proportion to the amount subscribed. Membership would not only be an advantage to women gardeners individually; it would also give them a chance of organising in conjunction with men of their own profession. The society can, however, take no steps unless a sufficient number of subscribers is assured. All who are interested in the matter are asked to kindly communicate with Miss L. Joshua, 58, Forest Road, Kew.

A Female Garrya.—The male *Garrya elliptica* with its long and handsome catkins is a familiar object of our gardens; but the female form with clusters of dark brown or blackish fruits is comparatively rare. The plant shown in the accompanying illustration has been sent us as the female form of *Garrya elliptica*, but, owing to the fact that all of the fruits are hollow and therefore sterile, we suspect it to be the hybrid of garden origin, *G. Thureti*, which closely resembles the species and is often sold as such.

A Herb Garden.—In view of the widespread interest now being taken in the cultivation of medicinal herbs, it is opportune to draw attention to what is being done at Kew. A small collection of the most important herbs from the medicinal standpoint has been cultivated for some years in the Cambridge Cottage garden. Now that their cultivation in this country for commercial purposes on a very much larger scale than heretofore is recommended, it is evident the authorities at Kew intend to afford all the help they can to growers by bringing together a representative collection of the most important plants. The number of beds in this garden has been more than doubled, each bed is apparently devoted to one species or variety.

Nerine Epic.—This is a charming new variety with what may be called typical *Nerine*-shaped flowers and a shapely truss. Their colour is a rich deep rose, without any suggestion of

blue, and the segments are rather on the long and narrow side. We draw our readers' attention to this particular variety, however, not so much on account of either the colour and shape of the individual blooms or the truss, but because it is a very free flowerer, since good bulbs which are cultivated on proper lines can be depended upon to give flowers almost every year. Like that beauty *Rotherside*, it is not an expensive variety, which is another good point in its favour.

Drill Hall Shows Again.—The Royal Horticultural Hall, having been accepted for the use

of the Australian Imperial Force, the Drill Hall of the London Scottish is placed at the society's disposal for such period as the Vincent Square premises remain at the disposal of the War Office. The Drill Hall is in Buckingham Gate, Victoria Street, opposite the Army and Navy Stores. It will be remembered that the meetings of the society were held there for a long number of years before the society built its magnificent premises in Vincent Square. The next meeting is fixed for January 16; this and subsequent meetings will be held in the Drill Hall. The society's offices and library remain at Vincent Square as heretofore.

Manuring Trees in Winter.—For obvious reasons winter is the most convenient time to wheel manure into the garden; but it is not necessary to mulch fruit trees every winter with farmyard manure. The work should be so arranged that practically all are dressed every alternate or third year, including wall trees. Exception can always be made in the case of trees which carry heavy crops, even mulching every year if thought desirable, while trees making excessive growth should not be mulched.

Fruit Trees for the North Wall.—The Morello Cherry is generally recommended for this aspect, but it is not everyone who desires to grow Morello Cherries by the dozen. Gooseberries and Red and White Currants grown as cordons fruit freely on a north wall, are readily protected from birds and, what is very important, the fruits hang on the trees in good condition long after those on the bushes in the open. Plums, including Gages, are also suitable for a north wall, flowering a little later than similar trees on a south or east wall; in addition, the early morning sun does not reach them, thus probably escaping a late spring frost, which would damage the more exposed trees. Dessert Cherries and Pears also succeed. The most important consideration for success is to have well-drained borders. It is useless trying to secure the best results when the soil is wet and heavy.



SEEDLESS FRUITS OF A FEMALE GARRYA.

* * * Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Clematis balearica and Moltkia petræa.—

Referring to Mr. Bowles' interesting article, issue December 9, page 594, it may be worth while to mention the habit of growth of *Clematis balearica* in the Olive terraces of Majorca. The twining stems find their way up through the dry stone walls and were in full flower in March. The corolla is somewhat cup-shaped and is cream-coloured, with crimson markings. I have a plant raised from seed collected there, but it has not yet flowered. *Moltkia petræa*, mentioned by "W. D." in the same issue of THE GARDEN, likes vertical chinks in rock. I saw it flowering well in such a position near Jablonica, in Bosnia, early in May.—E. R. B.

Apple Emperor Alexander.—"Spartan" does well to say how difficult it is to make a selection of Apples for any garden a distance away where one cannot be conversant with the peculiarities of the soil, climate, and local requirements when the question of sale is taken into account. I should not recommend Emperor Alexander for any garden, even where I knew it would flourish, because I do not consider its quality is good enough. The flesh is too soft, even for a cooker, and there is so much loss of bulk in cooking.—E. M.

The Merits of Divers Apples.—I am much interested in the varied opinions expressed in THE GARDEN with regard to the merits of divers Apples. I should think very few of us will agree with Mr. Farmer, who so heartily condemns Crab Apples. (I have just planted four trees of John Downie.) Really, he does not deserve to have any English Apples. Large, sweet and more or less flavourless American ones would apparently meet all his requirements. I suppose he would condemn Damsons also and only grow the sweetest Plums. Many of us value and enjoy a sharp-flavoured Apple (and green Gooseberries, and Lemons, and Pineapples). There is no doubt that Apples vary a great deal in different localities. Gascoyne's Scarlet is much better flavoured in my present garden than in my former one; while with White Transparent the case is reversed. I grow both of these Apples for their looks rather than for their excellence of quality (being a daughter of Eve, who "saw the fruit was fair to the eye" and desired it accordingly), though I take good care to have a succession of really fine flavoured fruits as well, both for cooking purposes and for dessert.—ANNE AMATEUR.

Schizostylis coccinea.—Mr. Clarence Elliott is, in my experience, quite right in suggesting that the Kaffir Lily flourishes when grown in partial shade and is not happy when given the "warm, sheltered position" its habitat and flowering season would seem to demand. But it may be one of those plants which "grow like a weed" in certain gardens and, despite all endeavours, eke out a miserable existence in others, though in several different localities I have never experienced any difficulty when keeping the Kaffir Lily hardy and cool. At the same time, I find that it will quickly dwindle in the early spring unless the soil is well drained. Few other plants may be lifted when coming into flower and potted without showing signs of distress, but this seems to improve under the disturbance. An easy method, which I have long practised, of protecting

the flowers from frost and ensuring a longer flowering season is to plant a bed the size of a portable frame on a north border and in due season place the frame over the plants. Failing a spare portable frame, four planks on edge to support a light, which can usually be spared from the pits, will do equally well.—C. D.

Freelias Going Blind.—I read some time ago correspondence from the Rev. Joseph Jacob and others about Freelias going blind. I should like to say that I have had the same thing happen many times, especially when bought fresh from the nurseries, so I have made close observation of them each time. I am convinced that it is owing to the state of moisture the first week or two after potting more than from anything else. I should like to give a little advice, although myself not an expert, hoping it may be helpful to others. I shake the plants out of their pots about the third week in July and leave them in an open box in a warm potting-shed for about a fortnight; then I pot them up in the usual compost, pleasantly moist, afterwards giving them a fair watering with a rosed watering-pot. I then put them in a cool shed facing north and plunge them up to the rim carefully in ashes, and they should be up in a fortnight or a little more, then be taken to the light, put in frames and treated in the usual way. The object is never to let them get dry nor to want water. I should say that the ashes ought to be damp in which they are plunged.—S. SMITH, *The Bungalow, Snatchwood Park, near Pontypool.*

Leaves as a Top-Dressing.—Half-decayed leaves in this garden are our salvation in these days of manure scarcity, and they are not only used for Rhododendrons and Liliums, but for practically everything, including herbaceous borders. They are Nature's own specific for the poverty of a stony soil. We never trouble to collect them. The winds do the sweeping for us, packing them into woodland pockets. The Bramble and Bracken of the yet untamed glade hold them. The frosts and rains of winter sweeten them, and to-day, before the new crop has buried them, they are brought forth in that partially decayed condition which we find so beneficial. Indeed, we have made a virtue of a necessity and almost abandoned farmyard manure as a top-dressing, for, especially on the steep bank of our wild garden, this is no sooner applied than the blackbirds and thrushes roll it all down to the bottom. This trick they most persistently exercise in early spring, just when the said top-dressing should be most useful. But the leaf mulch lacks the zest of novelty. It being more or less everywhere, our contributions to the general stock go unobserved.—A. T. J.

Bees and Menziesia polifolia.—The late autumn flowers of this handsome shrub are, if not quite so numerous, much the finest of the year. This is partly due to the fact that they are not spoiled by bees, which, instead of doing their business in the orthodox manner, bite through the walls of the corolla so as to reach the nectar within. The offenders are little fellows, not the super-bumble nor the hive bee, though their colour is much like that of the former. If these marauders were content to confine their burgling to one back-door it would not matter so much, but nearly every one which comes along seems to make a fresh hole, with the result that the punctured bells assume a rusty tint. The white variety is a greater sufferer than the purple, probably because, the corollas being larger, there is more

difficulty experienced in reaching the honey, and in flowers of such a waxen whiteness the blemishes are naturally more noticeable. This little bee will rob the blossoms of *Arbutus Unedo* in the same way, and I have seen it ripping open the calyx of the common red *Lychnis*. How do the botanists and others learned in the science of the fertilisation of flowers explain this obvious departure from principle in which Nature defeats her own object?—A. T. J., *North Wales.*

Raising Sweet-Scented Begonias.—We read with much interest the article published in your issue of December 2, page 583, by Mr. J. G. White, about the raising of double sweet-scented Begonias. If you will take the trouble to look over the two catalogues which we are sending you under separate cover you will see that in 1893 we were already offering sweet-scented Begonias, raised from crosses between *B. Baumannii* and some sorts of the tuberous-rooted section, and in 1897 we were putting in commerce double sweet-scented Begonias of the same parentage under the names of *B. odoratissima alba plena* and *B. odoratissima rosea plena*. They are still offered in our last catalogues. Of course, we do not intend to diminish the merit of the author of the article, but we thought convenient to establish our priority.—V. LEMOINE AND FILS, *Nancy*. [We sent this interesting note, together with the catalogues containing the descriptions of the sweet-scented Begonias, to Mr. J. G. White, who replies: "I am greatly interested in reading MM. Lemoine's letter. I can quite understand that they, being the introducers of *Begonia Baumannii*, should employ it for cross-breeding purposes, but I had no idea that these eminent florists had raised double sweet-scented Begonias as long ago as 1897. When spending a holiday at Ghent in 1903 I visited the nurseries of L. van Houtte and Son. It was from this firm I obtained the tubers of *B. Baumannii*. They had no double sweet-scented varieties then; in fact, I had the greatest difficulty in persuading the Dutch foreman of the *Begonia-house* to show me the plants of *B. Baumannii*. He imagined the blooms were too poor to tempt any purchaser! I shall be very pleased to send MM. Lemoine a few tubers of my sweet-scented double in exchange for some of their raising. The *entente cordiale* among double sweet-scented *Begonia* raisers would then be further strengthened.—JOHN G. WHITE."—ED.]

Home Food Production.—Every owner of a garden, where the local regulations allow pig-keeping, can with a very small capital expenditure produce some 2,000 pounds weight of pork or bacon each year. In most gardens there is a potting-shed or rough shed that will furnish sufficient shelter for a sow. Each sow will produce on an average eight little pigs that will grow to maturity per farrow, and two farrows per year, giving sixteen pigs to make into pork or bacon, and within twelve months the total pork or bacon from these pigs will be over 2,000 lb. of good meat. A great deal of the food can be grown in odd corners, and a section of the garden that in peace-time is given over to non-essential flowers or fruit can be sown with Clover and made into hay. One pound of Clover hay per day is splendid pig food (not generally known in this country). Those with some bits of waste woodland or an old paddock can, of course, do many times better with more sows. I practise what I preach. Before the war I kept Large Black sows as a hobby; since it started I have used some scores of acres of woodlands here and now produce thousands of

pigs per year. My open-air system of keeping them is simplicity itself. I will gladly show my system to anyone interested and answer any questions to help forward the vital national question of home food production. The Board of Agriculture's officials have been down here and published details of my methods, which I will gladly forward free to anyone interested.—S. F. EDGE, *Gallops Homestead, Ditchling, Sussex.*

The Ploughman's Spikenard.—The botanical name of this plant, referred to in the interesting article by "H. C." (page 559, issue November 18), is *Inula Conyza*. The latter name was used as a generic title by Linnaeus, who called this herb *Conyza squarrosa*, and it appears to signify dust. Hence we get the connection between the Ploughman's Spikenard and Fleabane, an old name for the species, which is still used in powdered form among some rural folk as a specific for fleas. The French call the Ploughman's Spikenard "Herbes aux puces," doubtless for the same reason. All of the *Inulas* appear to be rather uncommon, or strictly local in habitat, and they frequent widely different soils and conditions. *I. Helenium* (Elecampane), for example, grows in boggy land, wet meadows, or old gardens; *I. crithmoides* (Golden Samphire) is only at home in salt marshes or maritime rocks; and *I. Conyza* confines itself to limestone or chalky regions, and is not found in Ireland or Scotland. There is, yet another species, *I. salicina*, said to be common only to the shores of Lough Derg in Galloway.—A. T. J.

"Greening" and Sprouting Potatoes.—I have read with interest the article in *THE GARDEN* by Clarence Ponting on "Greening Potatoes for Seed." We are now being told by economists that we ought to plant the eyes of Potatoes and eat the remainder. In that case, those who green them for seed will not find them very nice for eating. If the sprouting portion of the Potato is cut off, say, during November or December, or before they made their sprouts, and placed in boxes to green for seed, would it be any detriment to the seed being cut so long beforehand? The other portion of the Potato could then be eaten while good. It would be of interest to know in these economic times if any reader has tried the experiment.—CHARLES GREEN, *Halsteads, Settle, Yorkshire.*

—There are thousands of cultivators of Potatoes who, like your correspondent Clarence Ponting, page 587, issue December 2, green their seed tubers without knowing why they do so. The greening of seed tubers, when properly done, is a matter of national importance. When the seed tubers are properly exposed to the light from the time of lifting, chlorophyll forms in the outer skin, and the sprouts which subsequently grow also become well furnished with chlorophyll. There is no waste of strength, but a steady building up of strength. Potatoes from properly greened sets are fit for lifting for eating purposes quite ten days earlier than those from sets wintered in darkened

stores. The late Mr. James Clafk, the raiser of the famous *Magnum Bonum* Potato who was personally well known to the writer, greened all his seed tubers, and regarded the process as of the utmost importance. There is a right way of doing it. When lifted, the seed tubers should be fully exposed to the air and sun, if possible, for about an hour to get the skin hardened a little. Then they must be removed to an open shed where plenty of light can reach them, be spread thinly on the floor and turned once. At the end of a month box the tubers and, until required for planting, expose them to light and air, only excluding frost. If placed in frames to green,



A CHARMING BELLFLOWER *CAMPANULA VERSICOLOR*.
From the figure in "Andrews' Botanical Repository."

tilt the lights a foot high and retain them there for a week. I have known many tubers to be burned in frames when the lights have been closed; some last summer were thus spoiled. In passing, I would like to say that nearly thirty years ago I stopped all clubbing in Brassicas by using salt and lime—1 peck of salt and nearly 3 pecks of unslaked and powdered lime per square rod of ground—and have never been troubled with it since where these ingredients were used in the soil. The lime should be put in during the autumn or early in the new year, and the salt forked in about a month prior to planting.—GEORGE GARNER.

NOTES ON HARDY PLANTS

IN the course of the year I have made notes of the following plants. A few of them I have grown, others I have seen elsewhere. Some are old and some are new; all, I hope, are of sufficient merit to interest hardy plant lovers. I shall begin the list with *Heuchera metallica*. The specific name may not be correct, but there can be no doubt that it is the plant described in J. Woods' "Hardy Perennials and Old-fashioned Garden Flowers," my copy of which bears no date. It states, however, that the plant was introduced by Miss Hope in 1881. It is still an uncommon plant. That it was a highly prized one by the author of the above work is not surprising, for at certain seasons it presents a remarkable appearance, the intense metallic sheen on the leaves suggesting the blue of a new gun-barrel. The flowers, too, are very distinct, having a bright tone of orange scarlet in their composition. On several occasions during the past two years I have had the pleasure of seeing this plant in a local garden and know that both years it has flowered profusely, which is more than can be said of many other *Heucheras*, both species and garden forms, which flower at times most sparingly.

In the garden already referred to *Campanula versicolor* has flowered this year. This is one of the finest of all *Campanulas*, and one wonders why such a lovely plant is so seldom seen, as it grows readily in the open border and also makes a charming pot plant. There is a magnificent figure of it in Andrews' "Botanical Repository," published a century ago. It is a native of Greece.

This season I have grown *Sphaeralcea ambigua* and *S. purpurascens*, both Argentine plants. The first named is a tall, erect shrub which from quite small plants in spring reached a height of 5 feet. It grows stout and strong and rapidly forms a shapely bush. The flowers are a pleasing shade of salmon, but are not large. What they lack in size is compensated for in quantity. The species cannot be called showy, but it is an interesting plant. *S. purpurascens* is of a totally different habit, and is similar to the plant we have for long been acquainted with as *S. Munroana*,

a name, according to Kew, applied to the wrong plant. *S. purpurascens* has really showy flowers of a pinkish purple. It is of a trailing habit, but not of rampant growth, at least in one season. I think this is a very attractive species.

Malva campanulata is one of the most desirable of the whole Order. The plant is seldom met with, probably owing to its not being over-hardy. I remember seeing it flowering nicely in Messrs. Ware's nursery two or three years ago, dwarf and compact, with soft downy leaves and lovely lilac flowers. This is a plant well worthy of special care.

Adenophora nikensis has been introduced from Japan. It is a free-flowering, tidy-growing,

Campanula-like plant with large bells of a fine shade of blue.

When on a visit to a garden in Kent I noted under the name of *Robertia taraxacoides* a very bright, lively little plant, a mass of brilliant yellow composite flowers. The foliage, too, was very pretty. Readers need not be alarmed at the Dandelion flavour of the specific name. This is no weed, but a really desirable little plant that makes a brilliant patch in the rock garden.

In the same garden *Polygala major alba* was nicely in flower. The terminal sprays of bloom are very charming, but the plant has a very untidy, weedy habit of growth.

I have grown and been pleased with *Verbena bonariensis*, a very old species taller than *V. venosa*. This species makes a good clump in the border.

Salvia nipponicum is a yellow-flowered Sage from Japan. It is in the way of the European *S. glutinosa*, but the flowers are a really good yellow. None of the yellow-flowered *Salvias* is of much garden merit, and this is probably the best of them. I have noted *Salvia dichroa* in good form this last season. This is a noble species which, if well fed and in good soil, will reach 6 feet in height. It was one of the glories of the late Mr. Gumbleton's garden.

Pteridophyllum racemosum is a lovely little alpine plant from Japan with dark green, Fern-like leaves and small white flowers. This looks a most promising little plant. It has been introduced to our gardens by the Yokohama Nursery Company and can now be purchased at home.

Burbank novelties for several reasons are received here with suspicion. We have had disappointments, but *Oenothera Afterglow* is quite a good plant. I saw a group this year which had given the gardener great pleasure. He considered it one of the most beautiful shades of yellow in his rich garden, and I agreed. It is a moderately tall plant, easily raised from seed, with large, finely shaped flowers in clusters.

Verbesina Purpusi.—This plant is now getting more plentiful and was lately exhibited at

the Royal Horticultural Society's Hall; a little yellow-flowered composite that is easily raised from seed. It begins work early, for the seedlings bloom when about seven weeks old. At this stage the leaves form a neat rosette and lie flat on the soil, and the plant looks very pretty indeed. The second year the leaves are much larger and the plant not so attractive-looking. I have a large group growing among shrubs, where it is quite hardy and perennial. The plant has the great merit of flowering freely for several months.

Physochlaina orientalis.—This plant is a very old denizen of our gardens and a true spring harbinger. It is one of the first border plants to flower, being often in full bloom during March. It cannot be called a showy plant, but as it blossoms almost alone in the border there are no competitors to detract from its appearance, so it finds many admirers; consequently my clump has been lifted and divided among friends more than once. Nicholson says there are but four species, all very desirable, the one under notice being from Iberia. It is a sturdy-growing plant 15 inches in height, with handsome downy leaves and terminal heads of purple blue flowers. Under the name *Hyoscyamus orientalis* it is one of the first plants figured in that fascinating book, "Sweet's British Flower Garden."

Greenwich Park. T. HAY.

ANEMONE MALLENDERI

(A. PULSATILLA × A. MONTANA RUBRA.)

DURING my peregrinations last summer on the outskirts of South Yorkshire, I entered the charming village of Scrooby, near Bawtry. It is a beauty spot where one may rusticate until autumn adds its glorious charms to hedgerow and woodland scenery. Scrooby claims to be the home of some of the Pilgrim Fathers, and from its vicarage William Brewster set out with his pioneer band to seek new homes in the Far West.

It was in this attractive spot I met the veteran horticulturist Mr. Mallender, who has a remarkable taste for floral hybridisation, of which he showed me various specimens of great merit. His *Anemone*, the subject of this article, attracted my particular attention as being unique. It is a most beautiful production and an interesting subject for the readers of THE GARDEN.

The seed parent was *A. Pulsatilla*, fertilised by pollen from *A. montana rubra*. I quote the raiser's own description of it: "One of the best new hardy border or rock plants sent out for some time. The plant is of a pleasing growth, throwing up numerous flowers on strong stems 12 inches to 18 inches in height. The flowers, which are sweet-scented, are single with stout petals, deep purple in colour, and a cone of bright yellow stamens in the centre. The plant prefers a sunny position and likes a good sandy soil. Although a strong grower, holding



AN OLD DENIZEN OF OUR GARDENS.
PHYSOCHLAINA ORIENTALIS.

its own, it does not trespass on the rockery." It was exhibited at the North of England Horticultural Society's Show at Leeds in April, 1915, when it received a first-class certificate. At the Red Cross Sale held at the Royal Horticultural Hall, Vincent Square, Westminster, the raiser presented twelve plants, which realised a good price. *Anemone Mallenderi* is a plant that will eventually be found in most gardens.

Doncaster.

GEORGE STOCKS.

THE DWARF POMEGRANATE

THE dwarf Pomegranate, illustrated in THE GARDEN for November 4, is one of those desirable subjects whose merits might with advantage be more generally recognised than they are. In the note accompanying the illustration in question it is stated that it gives excellent results against the outside wall of a warm greenhouse facing south. In just such a position a good specimen stood for years in the Ashburnham Park Nursery of the late Mr. William Bull of Chelsea, a spot long since handed over to the builders. This specimen formed a much-branched bush about 5 feet in height, and at the end of the summer and in early autumn it used to annually produce myriads of bright-coloured blossoms. In the bud state they were of an exceedingly bright red colour and wax-like substance, but when expanded the glowing orange scarlet coloured interior was very noticeable.

This dwarf Pomegranate may be grown on comparatively low greenhouse walls where the typical kind, with its taller growth, would be quite out of place. The small variety has, according to authorities, been grown in this country for nearly a couple of centuries, but, be this as it may, it is known to comparatively few. The leaves change to bright golden yellow just before they drop.

H. P.



ANEMONE MALLENDERI, A NEW HYBRID WITH DEEP PURPLE FLOWERS.

FLORENTINE GARDENS IN AUTUMN

BY W. HERBERT COX.

WHEN November opens, our gardens at home have usually lost their beauty and appear to be but a mass of decaying rubbish. Further South it is different; summer's heat has passed and the autumn rains have given them a new lease of life. Besides this, the Florentine gardens never look entirely desolate, as the Italians have learnt the use of evergreens to cover up the display of bare branches—tapering Cypresses and sombre Ilex. Even the Oaks and other deciduous trees retain most of their old leaves until the new ones push them off. Here there is but little sign of winter yet. Up on the Piazzale Michelangelo Roses luxuriate on the walls and Acacia floribunda waves its golden tassels, also the popular Mimosa (Acacia dealbata), though as yet it is only showing its buds. Underneath are yards of Erigeron mucronatus, a favourite edging, holding up their Daisy faces. Near the Cure Gate I noticed a summer-house almost covered with white masses of Solanum jasminoides; and by Montugi, on each side of a doorway were Oleanders at least 12 feet high covered with crimson blossom. At Lord Mexborough's Villa Montalto a Banksia Rose is full of late (or early) blooms. Cosmeas grow to 8 feet high, and are still covered with flowers. Magnificent specimens of the stately Berberis japonica are putting out sprays of buds. The Cape Pondweed (Aponogeton distachyon) scents the air on lakes in the Cascine, and little pink China Roses are thick in every hedge.

In this land of wonderful gardens the most charming to me is that of the Villa Stibbert, a successful combination of English and Italian styles. When making his magnificent collection of armour, the late Mr. Frederick Stibbert did not neglect his garden. Though not large, it is arranged with such taste and variety that it seems enormous, for there are few wide open spaces; mainly walks and terraces. Red Strawberries and white blossoms hang down from the Arbutus, tall Yuccas are in fine flower, and the avenue of Paulownias are shedding their huge leaves and showing tight buds like Walnuts, preparing for a cloud of mauve in the spring. There is a clump of one variety of Bamboo several hundred feet in circumference, with poles inches round. Walks have been cut through it, and in the centre is a pool with rocks and a Willow. Near a fine hedge of the India-rubber Plant (Ficus elastica) are masses of Date Palms set with fruit, scarlet Maples, Catalpas covered with bean-pods, and Pampas Grass with fine plumes. Under a Wistaria pergola are Orange trees set with fruit. Another Wistaria has been trained in tree form upon an iron rod, with pieces grafted in, and all kept well cut back. Under a great Magnolia grandiflora are Aspidistras, through which little pink Cyclamen neapolitanum are merrily peeping up. By one side of the orangery, over which clammers Ficus repens, is a border of Oxalis thick with pink flowers, and in front are multi-coloured Zinnias and Chrysanthemums of great size in splendid variety. Outside stand pots of the big-bulbed Dassylirion filiformis from Nigeria, and of Latania borbonica, which will before long be removed to their winter quarters. On the paved terrace is the Florentine Lily, the town's crest, done in

carpet bedding of silver and red. Near, too, are shining bushes of Raphiolepis japonica and a well-grown group of Veronicas, a mass of purple tails. On the island in the lake by the Egyptian summer-house is a blossoming Honeysuckle, over which even now yellow butterflies, bats and dragonflies chase one another. Goldfish gleam in the water and lizards lazily sun themselves on the banks. In the fruit garden are some fine Japanese Persimmon trees (Diospyros Kaki) weighed down with magnificent apricot-tinted fruit; the leaves have turned a vivid crimson, a brave contrast. The brown fruits of the Medlars also show up well amid their scarlet leaves.

Many visitors to Florence form their idea of a typical Italian garden from the sombre splendour

third gathering of the bright green leaves to be exported to Germany. There they were woven into "laurel" chaplets for the heroes, for the Germans were not even conscientious in this small matter. The beauty of the trees was spoilt by this plucking, which, though it may have added a few hundreds of liri to the income of the gardeners, hardly seemed necessary in the grounds of a Royal palace. There are also some splendid individual specimens of Horse Chestnut and of Parasol Pine (Pinus Pinea), the seeds of which form so favourite an article of diet.

Beautiful indeed are the gardens of the neighbouring villas, but the gardens in the town must not be forgotten. Most of the fifteenth century palaces were built round courtyards, which have frequently been turned into exquisite gardens. Modern houses, too, have followed this excellent example. Though not perhaps much more than 100 feet square, they are at all seasons delightful to look upon. True, there is not much room for display, but a delicious peep may be had when the great



ERIOBOTRYA JAPONICA, THE JAPANESE LOQUAT, IN A FLORENTINE GARDEN.

of the Boboli, which forms so dignified an addition to the Pitti, the Royal palace. They express themselves disappointed, for the gardens are almost flowerless. The shady avenues, dim aisles and dark cloisters are suggestive of a cathedral rather than of the open air. Everywhere are green walls. They are mainly of Ilex (now set with acorns), Sweet Bay, Box and Laurustinus showing ruddy buds, along which statues are placed at intervals. One of the largest trees of Eriobotrya japonica I have ever seen grows near the palace. The white flowers, which give forth so rich a perfume, will later be followed by the golden Nespoli fruit of which the Southerners are so fond. The fruit of another tree is now falling to the ground—the small globes of the American Persimmon (Diospyros virginiana). There is an avenue of good specimens of Magnolia grandiflora now overhung with great pink-seeded cones. This year they retain their bright green leaves, but formerly this was almost the time for the

doorway happens to open, or from a loggia above. There is usually a fine Magnolia, some Camellias (now well set with buds), an Oleander or two, perhaps a Cypress, a Japanese Loquat, Laurustinus, Privet, the shiny leaves of the Mexican Orange Flower (Choisya ternata), Azaleas, also a few other spring-flowering trees, some Iris and other bulbs, a few Pelargoniums and Carnations; while the walls are overhung with Roses, Wistarias, Tecomas, Akebia quinata, Solanum, blue Plumbago (full of blossom), Passion Flowers covered with fruit, and some Vines. To give a note of colour at this late season there are a few Cosmeas, a bed of Zinnias, some Marigolds, Agapanthus, and a border of scarlet Salvias. There is usually not much besides, but the effect from everywhere is always good and, what is better still, permanent.

Florence is, and has been for many years, a great town, and increases yearly. Her title has always been "The City of Flowers," which, though she has grown so much, she is able to retain.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

Fruit Under Glass.

Strawberries.—It is usual about this date to bring a batch of plants inside from the frames. A favourite place for them is on a shelf near the roof glass in an early vinery. The gradual raising of the temperature for the Vines is also suitable for forcing Strawberries. In addition to cleaning the plants previous to placing them in position, a top-dressing of rich soil may be given if space permits. Failing this, liberal supplies of liquid manure should be given later when growth is active.

Rhubarb.—The shortage of Apples in many gardens will necessitate larger supplies of Rhubarb

results at this season a temperature of 50° to 60° is desirable, and liberal supplies of liquid manure should be given.

Ferns.—Many, it might even be written most, indoor Ferns, though not deciduous, are better for a resting period in winter; not, of course, an absolute drying off, but a less active period, secured by a slight lowering of the temperature and a reduced supply of water. This does not refer to young seedlings, which, of course, must be kept growing, nor to plants of *Adiantum cuneatum* which are being grown to supply cut fronds early in the new year.

The Kitchen Garden.

Forcing Vegetables.—Even without the aid of artificial heat, early vegetables, may be grown, some on hot-beds, and others including Cabbage, Cauliflower and Lettuce,

FOR NORTHERN GARDENS.

The Hardy Fruit Garden.

Apricots.—The pruning and nailing should be completed, as Apricots are the first to show flower in the spring. The fruiting spurs on old-established trees should be kept as near to the wall as possible, so that the flowers will be less liable to injury from frost than when projecting a distance from the wall. Nail in a sufficient supply of young leading shoots annually to replace any branches that may soon give way.

Morello Cherries.—These require different treatment from that of the Sweet Cherries, the fruit being almost entirely borne on the young wood. Where trees are grown in the form of pyramids in the open, a judicious thinning of the shoots is all that is necessary, removing all those crossing each other or growing towards the centre of the trees. All the young growths retained should be left their full length. Trees trained on the north wall should have a portion of the old wood removed annually, making room for young fresh growths. These should not be left too close together, or small and poorly matured fruits will be the result.

Raspberries.—The young canes should now be securely fastened to their supports. If trained to a wire fence, the canes should be from 6 inches to 8 inches apart. Light, soft twine should be used, as this will support them quite well for a season. If any winter cleaning of cesspools is expected, the refuse may be used on the Raspberry or other bush fruit quarters with beneficial results. If new plantations have been arranged, the sooner they are completed the better. The ground should be trenched and well manured and, if convenient, a fresh mixture of loam added. After planting, the canes may be only temporarily supported, as later on they should be cut down to within 6 inches of the ground.

The Flower Garden.

Cuttings of Bedding Plants.—These require care during the dull months to prevent losses from damping. Geraniums suffer very readily if allowed to get damp. These should, if possible, be kept on a dry, airy shelf and allowed to become fairly dry at the roots before giving water, and when this is necessary a good soaking should be given, which will last them for a long time.

Plants Under Glass.

Azalea indica narcissiflora.—This plant forces successfully and is useful where pure white flowers are in demand, as the blooms last much longer in a cut state than those of the larger-flowered varieties.

Cyclamens.—The earliest of these ought now to be showing flower, and should be induced to continue as long as possible by frequent applications of liquid manure. Later and younger batches should be kept growing quietly under quite cool conditions until they are required, when a little additional heat will soon bring them into flower. The young plants which were raised from seeds sown last August should now be ready for potting up; they should be given small pots about 2½ inches in diameter. Pot them in a nice light compost of loam, leaf-mould and sand.

THOMAS WILSON.

(Gardener to the Earl of Strathmore.)

Glamis Castle, N.B.

ROSE JOANNA BRIDGE

I HAVE read with great pleasure the recent notes in praise of this variety. Just about a year ago I purchased two plants from Mr. E. J. Hicks, and all through last summer and early autumn these two plants, by virtue of their freedom in flowering, stood out from among the best of all the Roses grown. It may not be considered much good for exhibition, but for garden and house decoration Joanna Bridge is a real treasure. It is the kind of Rose from which one may cut and come again, taking armfuls of bloom each time. The pale open flowers are semi-double, and they are beautiful in the bud, where yellow, orange and pink tints are shown to perfection. SPARTAN.



THE NEW GARDEN ROSE JOANNA BRIDGE.

being forced during the next three months. Some growers recommend lifting the crowns and exposing the roots to the air for a week or more; others take them straight to the Mushroom-house or place them under the stage in a warm greenhouse. Having placed the crowns in position, cover with some light soil or leaf-mould and apply tepid water. Maintain a moist atmosphere by syringing on bright days. In small gardens tubs or boxes may be brought into use, placing these over the crowns, and covering with a mixture of stable manure and leaves.

Plants Under Glass.

Arum Lilies.—The introduction of several perpetual-flowering varieties of *Richardia* (*Calla africana*) has made it comparatively easy to secure an ample supply of blooms for the Christmas season. Childsiana, The Godfrey and Little Gem are the best-known sorts. To secure the best

planted out in the ground, the soil being broken up and manured. On mild hot-beds, Carrots, Radishes, Turnips, Seakale, Asparagus and Potatoes can be grown. Sow several boxes with Onion seeds in a greenhouse with a temperature of about 50°, placing them, when the seeds have germinated, on a light shelf near the roof glass.

Stored Roots.—At intervals it is necessary to look through the stores of Onions, Potatoes, Beetroot, Shallots, Carrots and Turnips. If under cover this can be done during inclement weather. In case of frost it is as well now to lift a supply of Parsnips and Artichokes. Pull soil up along the rows to protect Turnips remaining in the ground. Ample supplies of litter and strawy manure will be valuable in the garden now to cover the crowns of Rhubarb, Seakale, Horseradish, Celery, Parsnips and Artichokes still remaining in the ground.

Kew.

A. OSBORN.

THE ROSE ANALYSIS, 1910-1916.—III

BY COURTNEY PAGE, SECRETARY OF THE NATIONAL ROSE SOCIETY.

AN AUDIT OF THE NEWER ROSES.

THE audit given below is for new varieties of recent introduction, most of which it is impossible to place accurately in the table owing to their limited records. Each of the voters was requested to place the twenty-three Hybrid Teas on the audit paper in what he considered their order of merit, and to treat the Teas and decorative Roses in a like manner :

SPECIAL AUDIT OF THE NEWER HYBRID TEAS.—TABLE IV.

Position in Audit.	Name.	Total No. of Votes.	Votes by Amateurs.	Votes by Nurserymen.
1	George Dickson (1912)	845	416	429
2	H. V. Machin (1914)	779	408	371
3	Augustus Hartman (1914)	714	362	352
4	Florence Forrester (1914)	683	382	301
5	Mabel Drew (1911)	676	375	301
6	Lady Barham (1911)	571	287	284
7	Mrs. J. H. Welch (1911)	568	336	232
8	Mrs. Amy Hammond (1911)	544	267	277
9	Mrs. George Norwood (1914)	538	267	271
10	Gorgeous (1915)	495	228	267
11	Colleen (1914)	460	249	211
12	St. Helena (1912)	452	226	226
13	Edgar M. Burnett (1914)	448	260	188
14	Mrs. Andrew Carnegie (1913)	423	225	198
15	Mrs. Cornwallis West (1911)	393	217	176
16	Mrs. Charles Russell (1913)	387	204	183
17	Mrs. R. D. McClure (1913)	384	208	176
18	Edward Mawley (1911)	383	191	192
19	British Queen (1912)	372	196	176
20	Mrs. George Shawyer (1911)	361	192	169
21	Freda (1911)	267	172	95
22	Elizabeth (1911)	256	168	88
23	Mrs. Charles Reed (1914)	190	99	100

SPECIAL AUDIT OF THE NEWER TEA ROSES.—TABLE V.

1	Mrs. Foley Hobbs (1910)	198	104	94
2	Alexander Hill Gray (1911)	143	76	67
3	Mrs. Herbert Stevens (1910)	102	55	47
4	Mrs. Hubert Taylor (1909)	84	46	38
5	Mrs. H. Hawksworth (1912)	78	39	39

SPECIAL AUDIT OF THE NEWER DECORATIVE ROSES.—TABLE VI.

DWARF VARIETIES.

Position in Audit.	Name.	No. of Votes.
1	Mme. Edouard Herriot (1913), Pernetiana	30
2	Red Letter Day (1914), H.T.	27
3	Irish Fireflame (1913), H.T.	21
4	Old Gold (1913), H.T.	18
5	Ophelia (1912), H.T.	15
5	Princess Mary (1915), H.T.	15
7	Mrs. Wemyss Quinn (1914), Pernetiana	12
8	Autumn Tints (1914), H.T.	8
8	Mrs. C. E. Pearson (1913), Pernetiana	8
8	Louise Catherine Breslau (1912), Pernetiana	8
11	Queen Mary (1913), H.T.	7
12	Cherry Page (1914), H.T.	6

CLIMBING VARIETIES.

1	Cupid (1914), H.T.	20
1	Paul's Lemon Pillar (1915), H.N.	20
3	Moonlight (1913), Hybrid Musk	19
3	Paul's Scarlet Climber (1916), H.Wich.	19
5	Coronation (1912), Wich.	17
6	Climbing Richmond (1912), H.T.	14
6	Danæe (1913), Hybrid Musk	14
8	Climbing Melanie Soupert (1914), H.T.	11
9	Mrs. Rosalie Wrinch (1915), H.T.	8
10	Pink Pearl (1912), Hybrid Briar	7
10	Silver Moon (1912), Wich.	7
12	Florence H. Veitch (1911), H.T.	6

AUTUMN-FLOWERING ROSES.

The above term would appear to be somewhat misleading, because with the advent of the Hybrid Teas, which flower with equal freedom right through the summer as well as the autumn, it is now possible to have Roses almost up to Christmas.

The Hybrid Teas have been a very great gain to the Rose world and have gone a long way towards raising the Rose to the high popular position it holds to-day, a position quite unassailable by any other flower.

AUTUMN-FLOWERING ROSES.—TABLE VII.

HYBRID PERPETUALS AND HYBRID TEAS.

Position in Present Analysis.	Average No. of Times Shown in the Last Six Years.	No. of Times Shown in 1916.	Name.
1	16.5	12	Frau Karl Druschki
2	12.2	11	Hugh Dickson
3	9.8	11	Caroline Testout
4	7.3	4	Mrs. John Laing
5	7.2	3	Bessie Brown
6	6.7	3	William Shean
7	6.5	1	Dean Hole
8	6.3	3	Lyon Rose
9	5.8	4	Florence Pemberton
10	5.3	2	Lady Ashtown
10	5.3	4	Mildred Grant
10	5.3	1	Ulrich Brunner
10	5.3	1	Earl of Warwick
*14	5.0	5	Mrs. George Norwood
*15	4.0	4	George Dickson
16	3.8	3	Mme. Wagram
16	3.8	1	Mrs. Theodore Roosevelt
18	3.6	1	Avoca
19	3.5	4	Melanie Soupert
20	3.4	0	Lady Ursula

TEAS AND NOISETTES.

1	11.5	5	White Maman Cochet
2	10.8	11	Mme. Jules Gravereaux
3	10.0	5	Maman Cochet
4	9.0	6	W. R. Smith
5	8.7	8	Mrs. Foley Hobbs
6	8.2	7	Mme. Constant Soupert
7	8.0	3	Souvenir de Pierre Notting
*8	6.0	6	Alexander Hill Gray
8	6.0	3	Mrs. Edward Mawley
10	5.2	3	Molly Sharman-Crawford
11	5.0	0	Lady Hillingdon
12	4.0	0	Mme. Hoste
13	3.7	5	Medea
14	3.0	0	Marie van Houtte
14	3.0	2	Mrs. Myles Kennedy

DECORATIVE ROSES.

1	9.2	5	Mme. Abel Chatenay, H.T.
2	7.3	5	Irish Elegance, H.T.
3	7.0	2	La Tosca, H.T.
*3	7.0	7	Mme. Edouard Herriot, Pernetiana
5	6.2	5	Mme. Antoine Mail, T.
6	6.0	0	Mme. Jean Dupuy, T.
6	6.0	1	Orleans Rose, Poly. Pom.
8	5.5	5	Lady Pirrie, H.T.
9	5.0	1	Jessie, Poly. Pom.
*9	5.0	5	Louise C. Breslau, Pernetiana
9	5.0	6	Rayon d'Or, Pernetiana
*9	5.0	5	Old Gold, Pernetiana
13	4.8	2	Trier, Mult. Rambler
14	4.7	5	Arthur R. Goodwin, Pernetiana
15	4.4	5	Ecarlate, H.T.
16	3.8	1	Mrs. W. H. Cutbush, Poly. Pom.
17	3.5	2	Sunburst, H.T.
18	3.2	0	Perle d'Or, Poly. Pom.
18	3.2	0	Prince de Bulgarie, H.T.
*20	3.0	3	Cissie Easlea, Pernetiana
20	3.0	0	Grüss an Teplitz, H.T.
20	3.0	0	Mme. Ravary, H.T.

* New varieties, whose positions are dependent on their records for the 1916 show only.

LIST OF VOTERS FOR THE ROSE AUDIT, 1916.

Amateurs.—W. Boyes, Esq., Roseville, Middleton-on-the-Wolds, Driffield; S. W. Burgess, Esq., Red Roses, Tonbridge; the Rev. F. R. Burnside, Great Stambidge Rectory, Rochford, Essex; H. R. Darlington, Esq., Park House, Potter's Bar; R. de Escofet, Esq., Kingsley Dene, Green Lane, Dulwich, S.E.; F. Dennison, Esq., Cranford, Leamington; Dr. J. C. Hall, Rowantree House, Monaghan, Ireland; G. A. Hammond, Esq., Woodlands, Burgess Hill, Sussex; E. J. Holland, Esq., Silverdale, Sutton, Surrey; R. F. Hobbs

Esq., Thornloe, Worcester; Dr. C. Lamplough, Kirkstall, Alverstoke, Hants; O. G. Orpen, Esq., Hillside, West Bergholt, Essex; the Rev. F. Page-Roberts, Stratfieldsaye Rectory, Mortimer, Berks; the Rev. R. Powley, Harlaxton Rectory, Grantham; the Rev. J. B. Shackle, St. Anne's Vicarage, Dropmore, Maidenhead; F. Slaughter, Esq., Cashel, High Street, Steyning; G. Speight, Esq., The Square, Market Harborough; H. L. Wettern, Esq., Oxted Place, Oxted, Surrey; Dr. A. H. Williams, The Moat, Harrow; and C. C. Williamson, Esq., Wilstead, Ethelbert Road, Canterbury.

Nurserymen.—Mr. G. Burch, The Rose Nurseries, Peterborough; Mr. C. E. Cant, The Old Rose Gardens, Colchester; Mr. Frank Cant, Braiswick Rose Gardens, Colchester; Mr. A. Cocker, Springhill Nurseries, Aberdeen; Mr. A. Dickson, Royal Irish Nurseries, Newtownards; Mr. Hugh Dickson, Royal Nurseries, Belfast; Mr. E. Doncaster, Howe House Nursery, Cambridge; Mr. Henry Drew, Longworth, Faringdon; Mr. Walter Easlea, Danecroft Rosery, Eastwood, Leigh-on-Sea; Mr. John Green, Westcroft, 42, West Park Road, Kew Gardens, S.W.; Mr. Elisha J. Hicks, Hurst, Twyford, Berks; Mr. W. J. Jefferies, Royal Nurseries, Cirencester; Mr. J. R. Mattock, The Rose Nurseries, Oxford; Mr. S. McGredy, Woodside Nurseries, Portadown; Mr. T. W. Piper, The Nurseries, Uckfield, Sussex; Mr. A. E. Prince, The Rose Nurseries, Longworth, Faringdon; Mr. W. D. Prior, The Rose Nurseries, Colchester; Mr. G. M. Taylor, 2, Joppa Park, Portobello, N.B.; and Mr. A. Turner, Royal Nurseries, Slough.

ANSWERS TO CORRESPONDENTS

FLOWER GARDEN.

CUTTING DOWN DELPHINIUMS (W. G. B.).—There is not the least doubt that, so far as some varieties are concerned, the cutting down of these plants to induce a second flowering is directly responsible for second-class quality the following season. The first flowering—that of June-July—usually absorbs the main crowns; a second flowering, forced on the plant in large measure by the cutting down process, of necessity largely absorbs the remaining crowns or those that are large enough for flowering, and at that late season the plant has not the opportunity of forming top-size crowns afresh; hence in the following season a flowering of diminished value results. Some varieties, however, suffer less than others, Queen Mary being of the number. It is not easy to say what a load of manure should weigh, the amount of liquid various kinds absorb being greatly varied. A load of manure should always be heaped above the sides of the cart, though rarely two vendors agree.

DAFFODILS AND IRISES FOR NATURALISING (Maida Vale).—The direct answer to your enquiry as to whether "if mixed kinds are planted indiscriminately, will they not hybridise and revert to one type?" is "No!" Both genera may—indeed, do—hybridise freely as the direct result of the visits of insect life or wind agency, and the progeny resulting may be of an inferior or superior character to the originals; but the parent bulbs, if they remain healthy, will continue to produce flowers of the same character as heretofore. In other words, the pollinating of the flowers, whether by insect or other agency, affects the seeds only and the progeny these produce, the bulbs remaining uninfluenced. Seed production, too, can always be prevented by plucking off the flowers when these have faded. With respect to the Flag Irises of your friend "all reverting to the common wild yellow Iris," there has obviously been a mistake. The two are widely distinct species, readily distinguishable the one from the other in or out of flower. "Reversion" in such a case would be a misnomer; the thing, indeed, is impossible. We have tried repeatedly to cross these two kinds, always with futile results, though we do not infer that that also is impossible.

ROSE GARDEN.

ROSE SHOOTS FOR INSPECTION (Inquisitive).—The shoots of the Rose sent are attempting to produce roots. The trouble is not a serious one, but it suggests that the roots may not be in a very active state, and attention to them, with the removal of weak branches, would doubtless prove of benefit.

POULTRY-MANURE FOR ROSES (*Pettistree*).—Yes; this is an excellent fertiliser for Roses, and may be applied now and lightly forked into the soil. To established bushes and standards we should allow about a 6-inch potful, spreading it well around. Another dressing of similar quantity could be safely given in May, or it may be applied in liquid form by placing about a peck in a bag in a tub holding 20 gallons to 30 gallons of water and giving the plants a gallon of this once a week in May and June.

WHITE ROSE WITH ERECT BLOSSOMS (*T. J. H.*).—We should say that Molly Sharman-Crawford is the variety you are seeking. Florence Forrester is fine, but rather a short, stumpy grower. Jewel is good and produces grand big blossoms. You could cut back the *Antirrhinums* moderately, and this would ensure a more bushy habit. You would induce a more bushy habit if during the summer you cut away the old flowering stems before they run to seed.

THE GREENHOUSE.

A PLANT OF EXACUM (*A. D.*).—The plant appears to have had a check, caused by too much or too little water, or too low a temperature.

FUMIGATING WITH HYDROCYANIC ACID GAS TO KILL MEALY BUG (*E. A. M.*).—In fumigating with hydrocyanic acid gas, for every 100 cubic feet of space in the house use 1oz. of potassium cyanide, 1½ oz. of sulphuric acid and 3oz. of water. Remember, the fumes of the gas are very deadly. The acid is poured into the water and the potassium cyanide added at the last moment.

TUBEROSES UNSATISFACTORY (*J. W.*).—Go over all the bulbs when about to pot them in the spring and take off the small side shoots, which, if allowed to remain on, would only weaken the flower-stem. Then pot each bulb in a 5-inch pot at such a depth that the apex of the bulb is just above the surface of the soil. Plunged in a cold frame they will come on very gradually. Of course, they must be quite safe from frost. Just enough water should be given to keep the soil slightly moist till they form roots and start into growth, when the supply must be increased. As soon as the pots are well furnished with roots, an occasional dose of liquid manure will be helpful. The temperature to which they are subjected will depend upon the time they are required to flower.

WHERE TO OBTAIN PLANTS (*S. U. B.*).—For the old crimson Mule Pink apply to Messrs. Ware, Limited, nurserymen, Feltham, Middlesex; or to Messrs. B. Ladhams, Limited, Shirley Nurseries, near Southampton. We have not met with the old Cottage Pink *Chrysanthemum* for a long time, but you might try such specialists as Mr. Norman Davis, Framfield, Sussex; Mr. H. J. Jones, Hither Green Nurseries, Lewisham, S.E.; or Messrs. W. Wells and Co., Merstham, Surrey.

PORTIONS OF CYCAS REVOLUTA FRONDS GOING BROWN (*W. B. W.*).—The behaviour of your *Cycas* is a puzzle to us, and the only decision we can come to is that it is caused by an irregular temperature, too low at times. If this happens just as the young fronds are developing, the mischief may be quickly done. We presume that the roots are in good condition, otherwise that might account for it. During the winter this *Cycas* should not be subjected to a lower night temperature than 55°, and then only during severe weather. We are sorry that it is impossible to put our finger, as it were, on the source of the trouble, but hope that these suggestions will be of service.

PLANTS FOR NAME AND TREATMENT (*Anxious*).—The specimen No. 1 is *Mackaya bella*. Given ordinary warm greenhouse or stove treatment, it does not flower at all freely. The way to induce it to bloom is to grow it on freely during the spring and early part of the summer. Then, during the latter part of the summer, it should be removed to a light, airy greenhouse, and when sufficiently hardened off be fully exposed to the sun. It may be wintered in a structure kept at a temperature of 50° to 60°, and care taken not to overwater it at that season. In spring, under the influence of a rise in temperature, with increased moisture at the roots and in the atmosphere, it may reasonably be expected to flower. No. 2 is *Dieffenbachia picta*, a native of Brazil, which needs a stove for its successful culture. It is popularly termed the Dumb Cane from the fact that its juice is of a highly poisonous nature, and if brought in contact with the tongue it causes that organ to swell to such an extent as to render speaking difficult if not impossible. Owing to this you need to be careful in cutting it. We have never known the sap to affect the hands in any way.

TREES AND SHRUBS.

PLANTING A HEDGE (*N. P. B.*).—It is probable that Hornbeam will form the most suitable subject for a hedge in the position you describe. Procure good, sturdy plants 4 feet to 5 feet high, well branched to the ground-line, and plant them about 18 inches apart. The sooner they are planted the better.

INJURY TO MAGNOLIA LEAVES (*S. W.*).—The leaves may have been injured by insect or fungus agency, but there is nothing present now to account for the injury. If the leaves appear to be affected in the same way next year, please send some for examination while they are fresh and green, and we will endeavour to determine the source of the trouble and advise you as to a means of checking it.

TO KILL TREES (*Newlands*).—If you remove the bark of your Apple trees from the roots to a point 12 inches above the ground, the trees will die. Cut into the wood a

little on removing the bark. The roots may probably not die, but by boring holes into the main ones and filling them with salt, the majority will be killed. Basic slag may be sown broadcast on the ground as it is being dug. It can be applied now or in two or three months' time, but the sooner the better, as it does not act quickly.

MANURING A YEW HEDGE (*A. H. R.*).—Neither superphosphate nor basic slag will provide quite the same materials as bone-flour, and we scarcely think your Yew hedge would require dressing with the latter manure every year, since its constituents become only slowly available. Wakeley's Hop Manure would probably be useful, and we have heard it well spoken of for general purposes. See, however, our article on manuring in November 18 issue.

LAURUSTINUS FOR INSPECTION (*A. B. P.*).—Your *Laurustinus* is producing little gnarls on its stems consisting of numbers of small roots, which perish as soon as they make their way into the air. This production of roots may be due to the shrub being congested, i.e., with many branches close together, so that the air about them is kept moist, but the trouble is not at all likely to spread, for even if, as some suppose, it is induced by a minute micro-organism, the conditions suitable for its development will not prevail over any but a very small area.

DAHLIA IMPERIALIS AND THE TREE SALVIA (*Bransgore*).—It is very doubtful whether *Dahlia imperialis* will succeed outdoors with you until it flowers, although it grows outdoors quite well during summer. The flowering period is late—often October and November, therefore short days and lack of sun are quite against its flowering outdoors. It is sometimes grown outside in pots in summer and placed indoors to flower, but it usually grows 10 feet or more high, therefore requires plenty of room. The Tree *Salvia* mentioned in THE GARDEN of December 2 will probably succeed with you if planted in a warm and sunny position. We do not know where these plants can be obtained at present, as they do not appear to be stocked by nurserymen generally; but by applying to Messrs. Dicksons, The Nurseries, Chester, they would probably be able to procure the plants for you.

CLEMATIS AND RHUS (*A. H. R.*).—The species of *Clematis* and the botanical varieties do not give much trouble as a rule, but the garden varieties, such as the various forms of *C. Jackmanii*, *lanuginosa*, *patens* and *florida*, are often difficult to manage. It is probable that they have been somewhat enfeebled by too much intercrossing and over-propagation, but, whatever the reason, they have a nasty habit of dying suddenly when apparently full of vigour and in the best of health. Cool root conditions appear to offer the greatest chance of success, and on that account people often plant them so that the base of the stem and roots will be shaded from hot sun, while the top is fully exposed. Some people may have used zinc collars to protect the lower part of the stem, but there does not appear to be any really good reason for their use. Ordinary lime may be added to soil which is deficient in lime, mixing it in while the ground is being dug or trenched. For established plants a little lime may be dug or forked into the surface soil above the roots. *C. montana rubens* is a vigorous plant and usually behaves satisfactorily. It can be planted about the outskirts of bushes or small trees and allowed to ramble over the branches; but whether it will grow over Chestnut trees successfully is a matter for experiment, as the leafage is likely to be dense and the *Clematis* shoots will find some difficulty in making progress during the early stages. *Rhus typhina* and *R. cotinoides* can be used for the tall-growing kinds, and *R. Cotinus* and *R. trilobata* for dwarfier kinds. *R. Toxicodendron* is one of the most beautiful of all in autumn, but it ought not to be planted on account of its extremely poisonous character. Do not provide rich soil for the *Rhus*.

FRUIT GARDEN.

PEAR BRANCH FOR INSPECTION (*A. D.*).—It is quite common to find a swelling on the stem of Pear trees below a bud, especially where a fruit has been produced, probably caused by an extra flow of sap to the bud or fruit.

MILDEW ON PEACHES (*Redlands*).—The shoots you send are badly attacked by the common Peach mildew, and all such should be pruned out and burned, since the trouble will start from these next year if it is not done. Something is probably wrong with the borders in the way of drainage, or possibly the trees affected are subject to draughty winds. Both these sources of trouble should be seen to, and, in addition, it would be well to dress the shoots with Gishurst Compound or with Burgundy mixture before the buds burst in spring.

APPLYING GAS-LIME (*H. B.*).—Gas-lime should not be applied to the soil within three or four months of cropping it, as the very substances which render gas-lime an effective insecticide are likely to be fatal to plants, and it would be very inadvisable to use it in the way you suggest on the Strawberry-bed. It is used where insects are a source of trouble at the rate of about 4 tons to the acre (say, 2lb. to the square yard), sprinkled evenly on the surface before digging, and then dug in. If the soil is a light one, a lighter dressing might be sufficient; but if the object is merely to counteract soil acidity or to use the lime for its power of setting potash free, either quick-lime (if the soil be heavy) at the rate of half a bushel to the square rod, or (if the soil be light) powdered chalk at the rate of 1lb. to the square yard would be better.

HOW TO PRUNE AN OUTDOOR-GROWN PEACH TREE (*W. J. J.*).—The fruit of the Peach will be produced next year on the young shoots of the past summer's

growth; therefore these shoots should not be shortened, but nailed or tied to the wall in their entirety. There may be more of such shoots than room can be found for without overcrowding the tree. In that case the weakest of such shoots, and those which are in the most congested parts, should be cut out altogether to their base. That is really all the pruning a Peach tree requires in winter, unless there may be any dead wood to cut out. As some guide to the pruner whether there are more shoots on the tree than should be tied or nailed to the wall, it may be mentioned that the branches all over the tree when nailing or tying is completed should be from 2 inches to 2½ inches apart. All there may be in excess of this should be cut out as above. The proper times for pruning the Peach is early in April, when disbudding should take place, and in summer by thinning out the branches where they are too congested. Write us again about that time and we will tell you how to proceed.

REDUCING THE NUMBER OF APPLE TREES (*H. S.*).—You have given us a difficult task, because all the varieties in your list are useful. Apples are peculiar as to their bearing qualities. Some varieties which do well in one county or district fail in others, and we have no doubt it will be so more or less in your district, so that your experience as to which succeed the best with you should be your safest guide to follow. However, judging from a general standpoint, we name a few of those we think can be spared best: Cox's Pomona, Lady Henniker, Beauty of Bath, Cornish Aromatic, Lord Hindlip (which cankers badly in most places) and Margil.

TO IMPROVE GARDEN AND SMALL ORCHARD (*A. Z.*).—Four feet is the best recognised distance to plant rows of Raspberries apart. Yours are 3 feet apart. We would not disturb them for this reason, but would rather trench and manure a piece of land and plant new canes this winter as above. Let the old canes remain until the new ones come into bearing, and then grub them up and plant the land with something else. Superlative is the best Raspberry to grow. The new plantation would last for a generation and give you a heavy crop for years. Black and Red Currants.—Old bushes when dug up and divided do not do so well afterwards. You would do much better to plant young trees by the pathsides this winter. In two years' time they should give you a good lot of fruit. The old bushes could then be done away with, provided you had no further use for them. The best vegetables you can plant now are Spring Cabbage and Lettuce, also Onions. You do not say what pests your fruit trees are suffering injury from. Let us know this, and we will help you as to spraying.

KITCHEN GARDEN.

USE OF SULPHATE OF AMMONIA (*B. B. B.*).—Half an ounce of sulphate of ammonia to the square yard should prove a sufficient dressing for most crops. It becomes slowly available, but where a crop is long on the ground a second application of a similar quantity would be an advantage. It is best, however, not to urge autumnal growth too much by such manuring, as the soft growth likely to develop is less able to withstand the winter frosts. Only when lime or chalk is present in the soil is the crop likely to receive the full benefit of the application of sulphate of ammonia.

CELERY BOLTING (*J. W.*).—Dryness at the root at some time or another, causing a check in its growth, is the cause of bolting in Celery, and from this your plants no doubt are suffering. Very early sowing may occasionally have something to do with it. Celery is a brook plant, and if the best is to be made of it, it must have well-manured soil to grow in as well as abundance of water applied during its season of growth, and always a good soaking before earthing up takes place. Give manure-water freely in the height of summer.

MUSHROOM-BEARING SODS AND SPAWN (*P. G. J., Captain*).—The thing for you to do will be to collect a sufficient quantity of fresh horse-manure daily until you can get a heap large enough to make into a bed—say, a couple of small cartloads—which must be kept dry. With the manure may be used a similar quantity of the short straw litter generally accompanying it. Form into a heap as soon as the material is collected. We recommend to your notice the illustrated article in our issue of November 11. The way to spawn is to scrape holes with a trowel in the surface of the bed at 9 inches apart, and deep enough to bury the pieces of spawn out of sight only. The spawn should be broken into pieces the size of a hen's egg. Ram the spawn firmly into the bed, and cover over slightly with some of the manure. The next thing to do will be to cover the bed with a layer of sifted loamy soil, with no manure in it, passed through a half-inch mesh sieve. This layer of soil should be half an inch deep after treading it firmly down. The soil should be fairly moist, and the surface be made smooth and beaten smoothly down with the back of a clean, shiny spade. The next thing to do is to cover the bed with dry straw or Bracken to keep it warm. To find out whether the bed is of the right temperature, the best way is to lay down a thermometer on the bed and try to keep the temperature as near as you can at 53° Fahr. A degree one way or another makes no difference. If you find it is not warm enough, add more straw; if too warm, take some off. If all has gone on well, look out for Mushrooms in six weeks' or two months' time. The bed should bear for six weeks or longer. The manure will be valuable for the garden when done with. We shall be glad to help you further if any points are obscure.

THE GARDEN.

No. 2354.—Vol. LXXX.

DECEMBER 30, 1916.

NOTES OF THE WEEK

WITH this issue we publish our dedication and index pages and bring to a close Vol. LXXX. We take this opportunity of expressing our warm thanks to and appreciation of those readers who have helped to keep our pages bright and cheerful in these times of stress. We look for their continued support and hope for happier times in the near future. Many of our readers—and we trust all—are doing their utmost to increase the food of the nation. This is a time when all who can handle a spade must be up and doing. It was a sin to have missed opportunities last year, but the sin will be far greater if not remedied in the coming year. As the new President of the Board of Agriculture so aptly states: "It is my sincere conviction that victory in this great war may be won on the cornfields and potato lands of Great Britain."

Supply of Seed Potatoes.—Last year the Somerset County Council very wisely purchased 200 tons of seed Potatoes and then resold them in the county to between 3,000 and 4,000 individual buyers. Encouraged by the success of this local movement, the Board of Agriculture has now decided to go forward on national lines. By an arrangement made by the Board, the Treasury will finance a scheme for the distribution of seed Potatoes to meet the needs of growers. The President has invited the County War Agricultural Committees to request borough and urban councils and parish councils to ascertain what quantity of seed Potatoes is required in each village; to collect cash with orders and to distribute seed. It is proposed that arrangements should be made to deliver the Potatoes at convenient distributing centres in rcwt. bags. Not more than 5cwt. may be supplied to each grower, and the range of varieties will necessarily be limited.

Alpine Garden at Friar Park.—This volume of THE GARDEN is dedicated to Sir Frank Crisp, Bart., and it is fitting that views of his world-famous rock garden should appear in this issue. We cannot do better than quote the words of M. Correvoon on this rock garden in his admirable book, "Flore

Alpine": "What constitutes its beauty is the harmony of the lines, and, above all, the dimensions of the plants with regard to the rocks; a combination of qualities presenting to the eye a comprehensive view of excellent proportion. It is all true to scale, a point rarely observed in the making of rock gardens. Plants of large size and broad foliage are grouped at the base; while through successive rising levels one passes to the absolutely dwarf and close-growing flowers of the heights."

Perpetual-Flowering Carnation Charm.—One of the prettiest Perpetual-flowering Carnations it has been our lot to see is the new variety Charm. It is typically an English variety, with a splendid free habit, good erect stems, and very

pleasing blossoms. The calyx is good. The flowers are of average size, and the colouring is a soft daffodil yellow, lightly rayed at the petal edges with pink and white. The blend of colour is so dainty and so unusual that it has an instant appeal to all who see it. In fragrance it is delightful, the scent being more reminiscent of a delicately scented Stock than of the typical Clove smell of the Carnation.

Late-Flowering Nerines.—At this season, late December, when flowers are so valuable, it is worth drawing attention to two late-flowering Nerines. Though first introduced from South Africa as long ago as 1767, *Nerine undulata crispa* is very little grown. Compared with the earlier-flowering hybrids it has quite grass-like foliage and small, dainty, pale pink flowers with elegant waving or undulating petals. The other is *N. Mansellii*, probably one of the first hybrids, having been raised many years ago in Messrs. Henderson's nursery at St. John's Wood, though it is said to have been first flowered in Guernsey by the gentleman whose name it commemorates. To still further increase the usefulness of the beautiful hybrid Nerines in our gardens it would be worth while crossing these two late-flowering kinds with the autumn-flowering hybrids.

Keeping Late Cabbages and Savoys.—The following practice is fairly common in Northern gardens, and in view of its usefulness it is surprising that it is not more often adopted in the South: A fairly deep trench is opened on a vacant piece of ground, and a quantity of sound, hard heads of Cabbages and Savoys are buried head downwards to the depth of a foot. After stripping off the loose outside leaves, the heads are packed closely together and covered with soil, leaving the rootstocks protruding to denote their position. In this way Cabbages will keep fresh for months and come in useful when green vegetables are otherwise scarce, while those left uncovered are usually destroyed by alternating storms of frost and snow.

* * * Owing to the shortage of paper, readers who have not already done so are asked to order THE GARDEN to be delivered regularly by their newsagent. Readers will thus obviate the waste consequent on the issue of papers for chance sale, and so greatly assist in the economy campaign.



POOLS AND RILLS IN THE ROCK GARDEN AT FRIAR PARK.

CORRESPONDENCE

(The Editor is not responsible for the opinions expressed by correspondents.)

Increasing the Production of Food.—As supplementing the article by the Royal Horticultural Society recently on this subject, I would venture to point out what seems to me a practical and possible method for further assisting in the above necessary work. It is a recognised fact that there is ground lying untilled in private places and market nurseries that was hitherto under cultivation, also glass-houses and frames standing empty or practically so. In both cases the reasons for this neglect are doubtless the same—lack of labour or loss of capital, involving a necessary curtailment of expenses. Now, with the consent of owners, which assuredly would be given in most cases for patriotic reasons, could not disabled soldiers (and perhaps some other over-age Volunteer men) be used for these vacancies, their tuition and directing being the work of the present head-gardener or foreman of the nursery? The machinery being already in existence and the ground in such places not having been long out of cultivation, the extra quantity of early and other Potatoes, greenstuffs and Tomatoes procurable from these sources would be enormous, and at small cost, too. Furthermore, in some big establishments, at least, there are several large sheds available for keeping poultry. Could not they, until hostilities are safely passed, be used for such a purpose, and so increase our egg supply for the hospitals and general use?—C. TURNER, *Highgate*.

The Hardiness of Camellias.—I have been interested in reading "Always a Flower in the Garden" in your issue of December 16, but there is one point which I think may be open to some controversy. It is where the writer deplores the fact that Camellias will not grow in the open in England except in the south-western corner. Now, I have seen Camellias growing as huge bushes, covered with blossom, in the open in Jersey, and though Jersey is supposed to be milder and wetter than England, frosts, snow and bitter east winds are certainly not unknown there by any means. I was speaking on the subject to a Scotch gardener there who owns a hardy plant nursery in St. Heliers, and he described the plant's rarity in England as a matter of prejudice; British gardeners have made up their minds that the plant is subtropical and so will not trouble to try to grow it. "It is no more delicate than, or as delicate as," he continued, "many of our Tea Roses, and there is no reason why it should not be grown in any sheltered South of England garden." I think this may interest some of your readers. It seems such a pity that so beautiful a winter flower should be excluded from our gardens owing to a misunderstanding

of the constitution of the plant.—M. MOFFAT, *The Lawn, Shapwick, Bridgewater*. [The Camellia is as hardy or even hardier than the Laurel, but the flowers are often spoilt by spring frosts.—Ed.]

Mistletoe on the Oak.—We have learnt to regard Mistletoe growing on the Oak as an extremely rare occurrence. Dr. Bull in a paper in the *Journal of Botany*, Vol. II., page 73, mentions only seven authentic instances of the growth of Mistletoe on the Oak in this country. Presumably it was the rarity of the occurrence which led the Druids to regard the Oak with great

many other trees, including, we are told, other varieties of Oak, Pecan, the Cedar Elm, the American Elm, the Osage Orange, the Paper Mulberry, the Sassafras, the Apple, the Locust, Ash trees, and several species of Pine.—R.

Mistletoe on the Pear.—Although Mistletoe is found most abundantly on the Apple, it is a singular fact that it is very rarely seen growing on the Pear. We are indebted to Mr. W. H. Divers, V.M.H., Belvoir Castle Gardens, Grantham, for the extremely interesting illustration accompanying this note, also for the following particulars which we are pleased to record: "The bunch of

Mistletoe measures 3½ feet in width by 3 feet in depth and has seven years' growth well defined, so it is probably nine years from the seed, as the plant makes scarcely any growth during the first two years. This is the first year it has borne fruit. I do not know whether it was planted by one of the men, or if it has grown through the agency of birds. We have several pieces growing a few yards away in Apple trees, but no others on Pears. The name of the Pear is *Beurré Giffard*."

Apple Allington Pippin.—In a prominent weekly paper I recently read this: "Allington Pippin stands in the front rank among dessert Apples." I have had a standard tree in my garden for several years, and it crops regularly. Last year I noticed in *THE GARDEN* some remarks by one of your readers saying what a disappointing Apple this was, how sour and lacking in flavour, &c. I happened to have picked my fruit last year moderately early for a late Apple, and I found the remarks of your correspondent coincided as regards the taste in my Allington Pippins. This year I determined to let the fruit hang, as I thought the fault last year was that I had picked it too soon, so I netted the tree to save it from the tits and got the Apples in very late. But I am sorry to say that my experience is the same again as last year; the fruit is not really juicy, rather tasteless, and most decidedly acid. My situation is sunny and we are on gravel. The only conclusion one can draw is that this variety will only grow on a certain soil and in a certain climate of its own liking to produce fruit worthy



MISTLETOE GROWING ON A PEAR TREE AT GRANTHAM.

reverence. However, in America it is said to be a favourite host plant, as may be seen from the enclosed cutting from a recent issue of the *Florists' Exchange*: "While the Mistletoe, with its charming berries and its delightful Christmas associations, is dear to the hearts of many of us, the Government forest pathologists inform us that it has caused losses of millions of dollars to our hardwood trees of the forests, also to shade and orchard trees in various parts of the United States. Being a parasite it fastens itself on its host and draws nourishment from it, gradually sapping its vitality. The common Oak is one of its favourite hosts, but it also attaches itself to

of the first-class certificate that the Royal Horticultural Society gave it in 1904.—W. F. M. COPELAND.

Schizostylis coccinea.—Mr. C. Elliott asks for the experiences of readers concerning this plant. I have not seen it for some time, but in a previous garden we used to grow this Lily in a sunny raised border which led up to a range of glass-houses. It grew and flowered freely in frost-free autumns, but an early frost always spoilt the first venturesome blooms. To counteract this a certain quantity was every year taken up, potted, and stood in a frost-proof cool house or frame in which they would open properly.

Portions of the plant can be put into any sized pot, but 5-inch and 7-inch proved useful sizes, these making shapely pot-flowering specimens. The time of potting up was soon after the flowering spikes could be detected, keeping the plants outdoors until frost threatened. If tiffany or scrim can be placed on sticks over *Schizostylis* in the open, many spikes of useful bloom can be had without having recourse to potting. Also later flowers can be had by planting a break on a late border and putting over them, when frost threatens, one or two 6 feet by 4 feet frames.—C. TURNER, Highgate.

— The notes appearing in *THE GARDEN* about this useful subject takes one's mind back some twenty-five or twenty-six years when serving in the gardens at Canford Manor, Dorset, under Mr. Thomas Crasp. A large batch of several hundred clumps was grown there, and, as far as I can remember, on a fairly rich though somewhat gravelly loam in an open position. Here the plants grew well and flowered freely, and a large quantity of cut flowers was secured from them in the open air during the late autumn. By far the best blooms, however, were obtained from the plants that were lifted and placed under glass as described by Mr. Clarence Elliott, the flower-spikes being longer and much brighter. These were used chiefly for the decoration of the



LACHENALIA FRAGRANS. THE BULBS REMAIN DORMANT FOR ONE YEAR AFTER FLOWERING.

dinner-tables for shooting parties, and tended to conserve such subjects as *Euphorbias* and *Poinsettias* until a later date; and were I called upon to provide large quantities of cut flowers for this purpose, I should unhesitatingly grow, or endeavour to grow, a good batch of *Schizostylis coccinea*, as it appeared to give a maximum of bloom for a minimum of labour, and certainly few subjects are brighter or look more elegant in vases during what may be termed the duller months of the year.—THOMAS STEVENSON.

Lachenalias and Freesias Going Blind.—In reference to this subject, again raised by Mr. S. Smith, issue December 23, page 612, I would like to add that this is a very old and common failing with certain plants. Even in Nature it is known to occur. How else can we account for the non-appearance of certain British Orchids which unquestionably happens in some seasons? These plants appear to have the power of remaining dormant for even two or three years. I have heard it suggested that the fleshy roots may all succumb in the same winter, and that it takes some years for seedlings to reach the flowering stage; but this seems unlikely, as in the ordinary course of events seedlings would be sown every year and would, therefore, give a succession of flowering plants. I enclose a photograph of *Lachenalia fragrans*, published about a century ago in the "Botanists' Repository." It is the last part of the description in the text which has special bearing on this subject: "The extreme fragrance of this plant, amply compensates for its want of beauty; it retains its sweetness through the whole period of its flowering, which is of nearly a month's continuance. There is a species of this genus, much resembling our plant in flower, but nothing in the leaf; it is known by the name of *L. patens*, and has been frequently sold for this, but its scent is quite different, and it flowers much earlier; that is to say, in the month of March, but the *L. fragrans* does not produce its blossoms till May. It is a very hardy greenhouse bulb, and requires no particular management to make it flower; this, however, it does not do, but once in two years; not even appearing in foliage, but in the second year from its flowering." Verily, there is nothing new under the sun.—SPARTAN.

FIFTY YEARS' RECOLLECTIONS OF CHRISTMAS DECORATIONS

BY "ANNE AMATEUR."

THOUGH I have vague recollections of Holly and Mistletoe, my first clear and definite remembrance of Christmas decorations begins with Christmas Day, 1866, when my mother wore a red *Camellia* in her beautiful dark curly hair, and *Poinsettias* in pots were our only other flowers. I did not know their name, but, being a London child familiar with the "Zoo," called them "Flamingo flowers," and to this day connect them with that bird. (The next Christmas, alas! the *Camellia* was a white one, for my mother wore crape, and in November we had gathered Aimée Vibert *Roses* from the garden for my grandfather's funeral.) Soon in succeeding Christmases I recall stiff-spined pink and white *Heaths*, in pots, and *Solanum*, which latter I always shudderingly detested on



ANTIQUÉ PORTRAIT OF "ANNE AMATEUR" TAKEN FIFTY YEARS AGO.

account of its poisonous smelling leaves, which so soon shed themselves in the hot gas-lit rooms. There were no "table decorations" worth mentioning then, but we always had pot plants on our dinner-table, generally flowers, and sometimes a Maidenhair Fern; but even these were not usual.

Church decorations chiefly consisted of clumsy wreaths made of evergreens on ropes. I well remember one Christmas (still in the sixties) when the wreaths in our church were wound round the pillars alternately from left to right and right to left, and on coming out after the service my father declared they had made him feel quite sea-sick (a shocking fib, for he was an ardent sailor, and many happy days did I spend cruising with him then in the Nore in his tiny sailing boat). In the house our decorations mostly took the form of flat bands of Holly leaves, sewn singly on narrow braid and nailed round the doorways. Oh, how I pricked my poor childish fingers in trying to help make them! We also threaded Holly berries like strings of red beads. These were hung on the gas chandeliers. When we got into the seventies, Christmas decorations began to be more elaborate, especially in the churches; but flowers still were scarce. There were sticky, gummed red *Geraniums*, and *Camellias* were no longer in vogue. But oh, with what delight we hailed the first forced red *Duc van Thol* Tulips and little white Roman Hyacinths at Christmas! Their coming was a marked event indeed, and from that time onward year by year fresh flowers appeared on the Christmas dinner-table and "table decorations" became general, a variety of white flowers were seen in the churches, and other decorations became more artistic; flowers from France, the Channel Islands and Scilly came in ever-increasing quantity, as we all know to beautify our homes and our churches—though this year little home decoration will be seen, save where the happy few have dear ones "home on leave." I guess most of us will send all we can afford to the Red Cross hospitals, and content ourselves with a few sprigs of Holly and evergreens in our homes.

THE NONPAREILS

THE little group of Apples known as Nonpareils are; by their trim and compact growth, very suitable for garden culture, and especially so in those borderland regions between the vegetables and flowers. Their fruits are of the right dessert size—not one of those communal fruits requiring to be carved by the host and handed around, but Apples that you can bite a piece out of, the only test of the correct size of a dessert fruit.

The first representative of the family, the Old Nonpareil, has been grown in this country for many years. Stephen Switzer, who wrote in 1724, speaks of trees quite a hundred years old: "This Apple is no stranger in England, though it might have its Original from France, yet there

any Fruit and put one of their own cramp names on it, it is immediately their own."

Switzer, however, was candid and admitted the merits of the Nonpareil (due perhaps, in his opinion, to its thorough acclimatisation) as deservedly valued for "the Briskness of its Taste, the lovely Russet of its Coat that even the colour equals the finest Russets and the Taste is incomparably better."

From the venerable parent has sprung a family bearing in all cases very similar characters of growth and flavour. Of these, the best known are the Ross and Scarlet Nonpareils. The former is, to my mind, all that an Apple should be to the eye, evenly shaped, russet covered, with streaks of crimson red showing through, a true country Apple made for rustic pockets. The flavour is of the true Nonpareil character, which is easier remembered than described. Those who like Russets will know the style.

STORING APPLES

THE remarks upon storing Apples for winter use that appeared in THE GARDEN earlier in the autumn from various correspondents have attracted my attention. While much of this fruit has already been placed in storage, there is yet time to change conditions for the better, perhaps, in many cases. The timely editorial comments on this topic some weeks ago contained excellent suggestions, which I trust have been adopted and carried out by readers. This most valuable of all fruits, the Apple, is a wondrous creation in the realm of Pomona, the winter sorts especially, their season extending over so many months when properly cared for. Here we have a fruit which, if properly matured on the tree and carefully

gathered, holds its rich juices and chemical constituents in absolute suspension under its attractive skin for months, with little or no change, ready at all times for our use and enjoyment, and of inestimable hygienic benefit. Of what other fruit of this nature can we say as much? All we have to do is to give it fair treatment and not ignore its simple requirements; and yet how seldom this is done. It seems to me that the great fear of frost is often a cause of failure in the storage-room. I have demonstrated to my entire satisfaction that a few degrees of frost do not injure the Apple if left undisturbed while in that condition, and I believe that the nearer we can keep the fruit to this frost-line, say, 34° Fahr., the better we shall succeed in preserving the flavour and the crispness of the flesh; but sudden and radical changes in temperature are fatal and must be avoided. Once the fruit becomes shrivelled,

the quality cannot be restored. Of course, too much moisture is as bad as too much cold. In my estimation coldness, dampness and darkness are the three essentials, but each of these conditions must be most carefully regulated to avoid excesses. The ordinary house-cellar is largely used for this storage; but I find that the average cellar is too warm and too dry, and we do not get crisp, juicy Apples, nor even sound ones, very long under such conditions. There is so much difference in the quality of a crisp, juicy Apple and the shrunken, insipid specimen that we usually find in the market and so many private homes, that the extra care in preservation is well repaid, even though the cost should be greater, which is not always necessarily true. Where Nature has done so much for us in the creation of the Apple and left so little to our tender mercies, how can we refuse or neglect that little?

Kingston, New York.

H. HENDRICKS.



BOLD MASSES OF ALYSSUM SPINOSUM IN THE OLD ROCK GARDEN AT FRIAR PARK.

are trees of them about the Ashtons in Oxfordshire of about an hundred years old, which (as they have it by tradition) were first brought out of France and planted by a Jesuit in Queen Elizabeth's time."

Switzer, had no great opinion of the French and their fruits. "The French indeed (who would fain be first in everything) will scarce allow us here in England, to have any Fruit that is valuable, but what comes from them. And though there are some good sorts of Fruit in the Countries over against us of Normandy and Brittany, &c., and perhaps some about Paris, yet what are their Cousinots, Orgerans, Francatues, Fennilets, Calvilles and Haute Bontés and abundance more hard names compared with our Permaines, Gilliflowers, Pippins, Reynets and the like, not to mention the Nonpareil . . . yet such is the natural arrogance of these people, that when they can but once get possession of

The Scarlet Nonpareil is rather more of the Cox's school in appearance, but of good quality and in use after Christmas till March. I always feel I do not appreciate this Apple as I should; so many of my friends always spring into superlatives while I remain in the positive.

Braddick's Nonpareil is excellent. The fruit is rather flat and russety, with golden yellow and brown shadings; quite attractive and very useful.

It is sometimes said that Nonpareils flourish only in southern counties, and Dr. Johnson was, as usual, quite positive in the matter. Boswell suggested Nonpareils for his Scottish garden. Johnson: "Nonpareils, Sir? You can no more have Nonpareils than you can have Grapes." Either the Doctor was wrong or the climate of Scotland has changed, as Nonpareils are now grown North of the Tweed. The moral obviously is: Do not be overawed by the pundits; try for yourself!

E. A. BUNYARD.



SIR FRANK CRISP, BART., LL.B., J.P.



AN

ILLUSTRATED WEEKLY JOURNAL

OF

Horticulture in all its Branches.

Founded by W. Robinson in 1871.

EDITED BY HERBERT COWLEY.

VOL. LXXX. CHRISTMAS, 1916.

LONDON.

Office : 20, TAVISTOCK STREET, COVENT GARDEN, W.C.

Published by "COUNTRY LIFE," Ltd., 20, Tavistock Street, Covent Garden, W.C., and by
GEORGE NEWNES, Ltd., 8-11, Southampton Street, Strand.

THIS VOLUME OF "THE GARDEN"

is dedicated by permission to

SIR FRANK CRISP, BART., LL.B., J.P.

(President of the Horticultural Club.)

IT affords us sincere pleasure to dedicate this, the Eightieth Volume of THE GARDEN, to Sir Frank Crisp in appreciation of his deep and active interest in the art of gardening. Sir Frank Crisp takes the keenest interest in all branches of gardening, but his unbounded enthusiasm for the alpine garden is almost a passion. In the spacious and beautiful grounds of his home at Friar Park, Henley, he has created the most wonderful alpine garden the world has ever seen outside the Alps themselves. At all times of the year this remarkable rock garden presents an unfailing source of interest and pleasure. It has been described and illustrated in our pages on many occasions, and a view in the rock garden formed the subject of a coloured plate in THE GARDEN for October 26, 1912.

Excellent as these illustrations are, they give no conception of the magnitude and grandeur of this rock garden, containing as it does all that is choicest and rarest among alpine flowers. It has been said that a garden is an index of the mind, and this is true of Friar Park, for above all else it is original, while it has been designed on a broad and thorough basis characteristic of a generous mind. Moreover, it is not a garden kept solely for the enjoyment of a favoured few. One day of each week it is thrown open to the public on payment of a small fee, and the whole amount derived from this source is devoted to charitable purposes. By this means gardening charities have greatly benefited. Some idea of the great joy this garden brings into the lives of others may be gleaned from the following extract from an article entitled "Friar Park Revisited," published in THE GARDEN for June 19, 1915: "All visitors are welcomed, from the highest in the land to the poor East-Enders, one of whom spoke of his visit to Friar Park as the red-letter day of his life, adding that 'everything kind of had meaning like.' The purpose of the garden is so aptly set forth upon the Stone of Precation:

"The gardener toiled to make the garden fair
Most for thy pleasure."

The gardener knows he has achieved his aim; the pleasure he wished to give has extended far and wide, and the kind wish has been realised perhaps to a greater and more far-reaching degree than he ever anticipated. Her Majesty Queen Alexandra, whose love of flowers and gardens is well known, visited the garden for the first time last month, and was so enchanted that she repeated her visit the following day."

To Sir Frank Crisp gardening is a recreation in the leisure hours of an extremely busy City life. He is the senior partner in Messrs. Ashurst, Morris, Crisp and Co., a firm of solicitors of world renown whose offices are in Throgmorton Avenue, London.

Although a very busy man, he has found time for other interests in life. From 1878 to 1889 he was Honorary Secretary of the Royal Microscopical Society; from 1881 to 1906, Treasurer and Vice-President of the Linnean Society; in 1907 he was created a Knight and in 1913 a Baronet. He is a Justice of the Peace for Oxon, and the genial and popular President of the Horticultural Club.

His life-long interest in gardening and his love for precious flowers are the reasons for his acceptance of the dedication of this volume. Sir Frank Crisp was born in 1843. He is hale and hearty, and looks much younger than his years. That he may long continue to enjoy the garden he has made is the wish of his many friends both in and out of the gardening profession.

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NOTES FROM MYDDELTON HOUSE GARDEN

BY E. A. BOWLES, M.A., F.L.S.

I HAVE chosen another little flower of quiet greenish colouring for the last of my series. It is one of the so-called Australian Fuchsias and was given to me many years ago by my kind old friend, the late Mr. W. E. Gumbleton. It was then a small rooted cutting in a pot, with a label, as large as itself, inscribed "*Correa magnifica*" in the clear bold lettering he was not a little proud of when he had just fitted three long words into the narrow space of a clean wooden label.

I can recall him so clearly, standing in the doorway of the potting-shed, having brought the results of the day's post to be labelled and planted. He would say, "Give me a label, Mike," and then, holding it out in his left hand, without resting it on anything, slowly added letter to letter, and the more of them went to a word the more he seemed to be pleased with it.

I never remember seeing him plant or pot anything; Mike did all that under his instructions. Writing labels and pulling up Groundsel in the borders or *Centaurea nigra* in the grass were the only gardening jobs he ever did with his own hands.

My *Correa* babe grew so lanky in the conservatory, and the few flowers it then bore so thoroughly belied its specific title by their absence of magnificence, that I made up my mind to turn it out by my new wall in the days when its bricks were calling out loudly for any sort of clothing. As we have not had a severe winter for over ten years, it has grown without a check and is now at the top of the wall, and from November to March up to the present year it has never been without flowers. Certainly after a week of sharp frosts the most prominent blossoms are browned and spoilt, but buds survive and a warmer spell soon provides a fresh set of green bells. They are quite pretty enough to gather, and if the stems are put at once into warm water they last fresh for several days and look well with a few blooms of *Iris unguicularis* or *Chimonanthus fragrans*, but are good enough by themselves for those who can appreciate the pleasant contrast of the deep green of the smooth, leathery upper surface of the round leaves, with the rust-coloured stems and ribs of their grey felted under sides, all of which help to set off the pale emerald green bells and their rusty red expanded tips.

The buds look like tiny acorns, and when the flower has fallen the rust-coloured calyx remains on and is lined with such a brilliant shade of emerald green that it too is quite a pretty object. The fallen corolla is interesting also, for the four petals of which the bell is formed are then seen to be separated from one another where covered by the calyx, as well as where they bend back at the mouth, and are therefore only joined, or connate, for about half their length.

It makes a wonderfully neat plant for a warm wall, and, being evergreen and flowering in the dull months, ought to be more widely planted. But why *magnifica*? I thought I should like to find out, and have spent a most delightful evening with my books endeavouring to do so. The "*Kew Index*" has it in the fourth supplement as being of garden origin and described by Gentil in 1907 in a work on plants cultivated in the

Brussels Botanic Garden, which I have not got to refer to, and so I was almost headed off, but it is also stated to be synonymous with *C. speciosa*. Then the fun began, for in the first volume of "*Index Kewensis*" no fewer than a dozen other names are declared to be synonyms of *speciosa*. So I got down the first volume of Pritzel and turned up "*Correa*" to see which of my books would give me figures of them. By the time I had examined twenty-six beautiful plates I had got new ideas of the possibilities of variation in one species, and marvelled how anyone could believe those with crimson, upright flowers were one species with those with either pink and wide, or green and narrow pendent bells. Nor for a long time could I find any with the round leaves of my plant.

The hunt took me to some of my most beautiful books, and I felt certain the artists had faithfully drawn the forms before them. It even brought

out my most precious possession—the great folio volumes of Ventenat and Bonpland's "*Jardin de la Malmaison*," which contain some of Redouté's most exquisite plates, and perhaps the most beautiful ever made. The first I found at all like my plant was the plate of *ferruginea*, in "*Maund's Botanist*," Vol. III., page 124, but its leaves are too pointed and its flowers too short. In "*Paxton's Magazine*" I found a reference to *ferruginea* as being a hybrid, and following that hint I read his account of other hybrids in Vol. XIV. and found one called *magnifica*, which, allowing for a little artist's licence, might represent my plant. All that is told about it



CORREA SPECIOSA VAR. MAGNIFICA. (From a drawing by E. A. Bowles)

states that with five other hybrids it was raised by Mr. Gaines of Battersea, the parentage not being mentioned. Then I turned to more strictly botanical books, and from C. Moore's "Flora of New South Wales" and L. Rodway's "Tasmanian Flora" I learnt a sure way of detecting *C. speciosa*. The four filaments that grow opposite the petals are dilated towards their bases, so that they are as wide as the petals at that point, while the four other filaments are thread-like throughout their whole length. This character is well represented in my plant, and therefore it seems most likely that it is a garden form of *speciosa*, very probably raised by Gaines.

I am pleased to find a fresh virtue in a plant I have admired for other good points ever since I first saw its beauty in the Roja Valley of the Maritime Alps. It is only a fine form of our native Hellebore, *H. foetidus*, the Bear's-breech, that is larger in nearly all its parts. Yet, though the divisions of its leaves are longer than in our wild form, they are not so wide, and gain a great deal thereby in beauty. This season it has been in flower for the last fortnight, while the older inhabitant of our woods and gardens is only now showing the pale green bracts and buds as a curved spike among the crown of deep green leaves, I believe the deepest coloured borne by any plant in the garden. I have long rejoiced in the wonderful contrast of black-green leaves and emerald green, purple-edged blossoms of the native, winter-flowering plant, and have used it to fill dark corners where little else would grow; but I was quite surprised at the beauty of the plants in the Roja and Vesubie valleys. They made a mass of stems and finely divided, Palm-like leaves over a yard across, and the flower-heads were more imposing in their greater size and number of flowers. I brought away seed-pods, and find the resultant plants are developing into specimens as fine as their parents. I also notice that they have a touch of red where the leaflets join the petiole, which is a great improvement on the uniform deep green of the old form.

For the last three weeks I have been watching with admiration and almost envy the irrepressible cheerfulness of a certain little Pansy. No sooner has the frost thawed away from it than the purple and yellow faces rise up as fresh as ever and look you straight in the eye with an expression of friendly encouragement, sorely needed in these trying times and dark days. Its seeds were gathered by Mr. Farrer on the cloister wall of a far-away Tibetan abbey, and he tells me the plant was said to have been brought there from yet another abbey. If it had no other charms, I should like to grow it for the sake of its travels. Though *V. tricolor* is found in Asia Minor, I somehow or other should not connect it with the Far East. Then why and whence did some travelling lama carry its seeds to his abbey? It seems to be nearest to the form of this very variable plant reckoned by Wittrock as a separate species under the name *V. alpestris*, a more or less bicolor form common in the lower meadows of the Alps, but its upper petals are of deeper blue in any form he figures.

It is very similar to a little Pansy I like much, and which Miss Hopkins frequently shows at the Royal Horticultural Society's meetings and I think calls *V. Hopkinsiae*. I bought it from her, and it has shown itself freely here and comes quite true, a pretty miniature of the charming old bicolor Jackanapes, but more truly purple, and less brown, in the colour of the upper petals.

Mr. Farrer's form is of the same colouring, but has laxer habit—rather sprawling and untidy, in fact—and the flowers are longer and less well shaped, and its black spot on the lowest petal, which looks like a little imperial and gives quite a Napoleon III. expression to its face, is much more conspicuous than in Miss Hopkins' plant; and, again, the side petals of the Tibetan stranger often flush with a red shade as they reach middle age. I notice that its flowers are stiffer and of greater substance than in other *Violas*, especially in the lowest petal, and I expect it is this thickness of skin that renders it so resistant to its troubles.

Several buds of *Galanthus byzantinus* have escaped from their spathes and hang like large pearls among the dead leaves of *Lilium giganteum*; the later forms of *Crocus laevigatus* are just beginning to open their beautifully feathered flowers, and show me I have completed the cycle of the year in these notes; and I feel it is time to lay down pen and pencil for a while to give my readers, this garden and myself, a rest and change.

WINTER COLOURING NEAR WATER

For colour effect near water—be it pond or river—nothing can surpass a belt of Common Dogwood (*Cornus sanguinea*) backed by a judicious grouping of Golden Willow against a thick plantation of the common Alder. In summer, Alders are dull, if not ugly, trees, with dingy green foliage which never takes on any beauty of changing colour; but in winter and early spring, when they are covered with catkins, the variety of tints which they show is marvellous—rich brown and Indian red at the early stages of the catkins, bistre, ochre, and every shade of delicate yellow brown as they develop and show their pollen. Golden Willows may be allowed to grow to a good size, and by occasionally lopping their branches, thick masses of orange twigs will be ensured. Dogwood should be planted quite close to the water, and in time it will shelve over for a yard or more, giving full effect to the reflection of its rich crimson twigs, which, in sunshine or after a shower of rain, simply glow with colour, and are, after a fall of snow, indescribably beautiful. Nothing is easier to grow than Dogwood and Willow; any rod or twig cut during winter or early spring will root in moist ground. The line of Dogwood should be broken here and there for a few yards, and the banks of the pond or river planted thickly with Primroses of all shades, with bulbs of Snowdrops, Winter Aconites, Squills and Daffodils dibbled in among them, an arrangement which will give a show of varied and delicate colouring, and cause infinite pleasure for several months in succession. The more mixed and irregular the planting is, the better, to give a wild and natural effect, and if left undisturbed for years to seed and place themselves, all these charming flowers will increase and fill in bare places, mingling with each other in exquisite effect and contrast. Aspect should be considered, and the planting done as much as possible on the north and east banks, so that full sunshine falls upon the background of Alders, Golden Willows and Dogwood, immensely enhancing the beauty of the reflections in the water below. Great depth and softness of colour may be gained by the rich, dark foliage of a few Scotch Pines and Yews planted among the Alders to contrast with the brighter tints in front.

A COLUMN FOR THE CURIOUS

"FOR the Consideration of the Curious," in the issue of the 9th inst., is a misnomer. What the Rev. Joseph Jacob means is that contributors to this column should write up to the spirituality of plant culture; not as is, and always has been, the rule, down to the material. The doubtful quantity is the capacity to receive spiritual philosophy relative to material known and handled. Thus, for instance, the following is absolutely accurate as to the morality of the Potato; but how many would see the force and practical bearing of it?

The Potato came to Europe with the rise of modern Imperialism, and since the seventeenth century has been a dominant factor in national economies. In these last days, with the Empires in their most deadly conflict, human endurance is largely a question of the Potato. Though related to one of our worst native weeds, the Potato is from a genial climate of South America. Requiring, thus, generous treatment in our uncertain climate, it has none the less been subjected to barbarous treatment and a system of culture violating a primary law of Nature. "The mills of the gods grind slowly." They ground through two centuries before they avenged the wrongs of the Potato. But if slow, they also grind small. When Nature's vengeance for the violation of her laws as to the Potato did arrive, it was ample and deadly. There are few now who remember the coming of the Potato blight and the widespread disaster it brought to millions, who had every reason to pray "Give us this day our daily Potatoes" rather than "Give us this day our daily bread." Many then humbly confessed their sin against the Potato; but scientists and others in power at once set to work, in no spirit of repentance, to devise means whereby the Potato could be compelled to submit to barbarous culture and yet bless humanity with its bounty. Homœopathy finally provided a compromise. The Potato plant is, like its native relative, poisonous, the dismal aspect of the flowers showing this. (The spirituality of poison is another subject.) Thus, by judiciously applying poison where poison already was, the conjunction of poisons proved, synthetically or otherwise, a remedy for the Potato blight. Finally, either from a study of the original programme of Creation or direct inspiration, it dawned upon a few that the Potato, treated according to the principle of its being a "herb-bearing seed," as stated in the programme of Creation, would be partly or entirely immune from the penalties of violation of Nature's laws in the vegetable world. This is now not only proved, but it is also found that the honouring of Nature's laws in one generation of Potato will secure beneficial results for several generations, even if barbarous and unnatural culture is practised. Light is thus breaking in the Potato world, and if it was sentient it doubtless would say that, like humanity, it hopes for a better world than the present.

With the greatest respect for the Rev. J. Jacob, I may add that I have known THE GARDEN as long as anyone, and I do not think its *clientèle* want selections from a schoolgirl's scrapbook, causerie or other miscellanea. But they crave something as to the true nature of things.

HURSCOT.

SOMETHING ABOUT FUCHS AND HIS HERBAL

BY THE REV. JOSEPH JACOB.

"What's one man's poison, signor,
Is another's meat or drink."

THUS it has come to pass that the abysmal ignorance of doctors and apothecaries in the times of the sixteenth century after Christ has had the unexpected result of giving us an exceedingly beautiful picture book of plants, one which such famous judges as William Morris and John Ruskin singled out as being the high-water mark of all herbals, illustrated by old-fashioned wood block engravings. It happened in this wise:

Leonhard Fuchs, who was born in 1501 at Memmingen in Bavaria, after having studied at several universities, as the custom then was, became a Doctor and a Professor of Medicine, first of all in 1526 at the University of Ingolstadt, and then in 1535, when his adherence to the teachings of Martin Luther made a change of domicile advisable, at the University of Tübingen, which had lately adopted the reformed faith, where he remained until his death in 1566. His great patron was the Margrave of Brandenburg, to whom he became body physician, and it was while he was in his service that he acquired his great reputation as a doctor by his success in the treatment of a severe outbreak of "the plague" at Anspach in 1529, which at this date seems to have swept all over Germany. His fame reached our

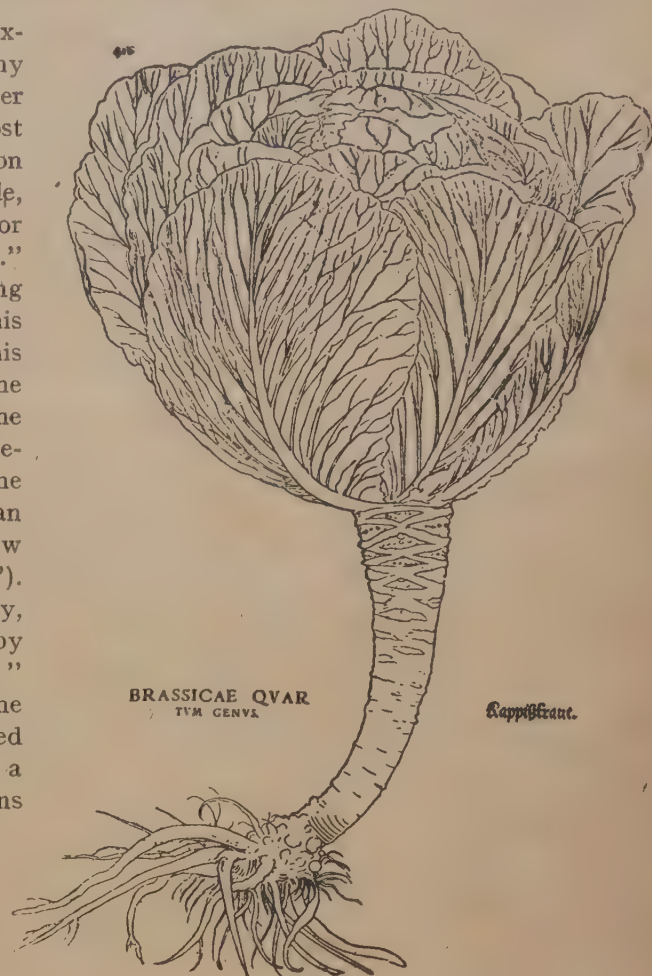


LEONHARD FUCHS IN HIS FORTY-SECOND YEAR.

From his "De Historia Stirpium."

own islands, and there is in existence a late sixteenth century little book entitled "A worthy practise of the moste learned Phisition Maister Leonerd Fuchsius, Doctor in Phisicke, most necessary in this needfull tyme of our visitation for the comforte of all good and faythfull people, both olde and yonge, both for the sicke and for them that woulde avoyde the danger of contagion." For the last forty years of his life university teaching and the active practice of medicine divided his time, and this work and intercourse with his fellows soon made him painfully aware of the ignorance of the ordinary practitioner and the ordinary seller of herbs of the plants they prescribed or sold. "It is scarcely possible," he says, "to find one among a hundred who has an accurate knowledge of even so many as a few plants" (Introduction to "De Historia Stirpium"). This must be remedied if possible. Accordingly, his appetite being whetted in all probability by the success of Brunfel's "Herbarum vivæ Eicones" and its wonderful pictures, so naturally done and so unlike anything that had ever appeared before, Fuchs made up his mind to produce a herbal of his own in which pictorial illustrations should be the strong point, faithful delineations of the plants used being, he considered, the best way of correcting the lack of knowledge in his *confrères*. To this end he employed the best artists and painters, and engravers, who were kept busy figuring the plants he brought them, so that in 1542 he was able to bring out his famous work, "De Historia Stirpium," with upwards of five hundred large full-page pictures. There are also included a full-length portrait of Fuchs himself and half-length pictures of the two painters and engravers who assisted him. The plants delineated are practically all either the wild or the garden plants then growing in Germany.

To give readers who do not know the original an example of the strikingly beautiful way in which the plants are treated, I have chosen Fuchs' picture of a "common or garden" Cabbage. If such an unpromising subject can be made so much of, it follows that those which lend themselves to artistic treatment will at least be equally beautiful. Two thoughts suggest themselves. First, what was really in the herb gardens of the period, and were there no herb-growing districts like those of our own Mitcham in Surrey? I presume only very usual herbs were grown—on a par, let us say, with the simple medicines kept in a twentieth century English household—and that with the exception of a very few herbs, of which Saffron would be one, none was cultivated on a mercantile basis, but herb collectors had to go out into the country and collect from wild sources. Secondly, it is interesting to note the comfortable and affluent circumstances of a famous doctor of the period. He seems to have financed the "De Historia Stirpium" himself, and it was only after more than twenty years of patient labour to try to extend the scope of his first work that he had need to seek a wealthy patron to enable him to publish a very much larger edition. Before, however, the necessary funds could be found, Death came and cut short his life, and ended what always must have been to him a source of much pleasure and interest, "the pleasantness and delight of acquiring knowledge of plants, since there is no one who does not know that there is nothing in this life pleasanter and more delightful than to wander over woods, mountains and plains, garlanded and adorned with flowerlets



A CABBAGE PLANT.

From Fuchs' "De Historia Stirpium."

and plants . . . and to gaze intently upon them."

The success of Fuchs' Herbal was instantaneous and great. Of its contents and of its numerous editions I must forbear to write. I have simply called attention to the man Leonhard Fuchs and in a very brief manner tried to show how it came about that he wrote and illustrated his celebrated Herbal, examples of which I trust will last as long as that beautiful genus of garden plants that Father Plumier named *Fuchsia* in honour of this great sixteenth century herbalist. I am indebted to the courtesy of Mr. Bernard Quaritch for the accompanying illustrations. They were photographed from an "immaculate" copy then in his possession, bound in the original stamped pigskin and dated 1543. It is valued at £48. It has 515 full-page woodcuts, and came from the great Huth Library. The text is in German. It is of some interest to know that William Morris' copy, which I believe was the original Latin edition of 1542, fetched the sum of £56 at the sale of his books.

GARDEN PEA DISTINCTION.

THIS variety, in my opinion, is one of the best late maincrop Peas of recent introduction. It was sent out by Messrs. E. Webb and Sons a few seasons ago, and did remarkably well with me, the haulm being robust right from the start. The pods are well filled with large, beautiful green Peas, the flavour of which is unsurpassed by any others that I have grown. Distinction attains a height of 3½ feet to 4 feet, and is as valuable for exhibition purposes as for the table. I would advise all who are ordering Peas for sowing in the coming spring to include this variety; if it does as well with them as it did with me, they will not be disappointed. A. B. ESSEX.

GARDENING OF THE WEEK

FOR SOUTHERN GARDENS.

Plants Under Glass.

Chrysanthemum Cuttings.—This is a good time to insert the main batch of cuttings. Stools lax in pushing up cuttings should be introduced to a heated greenhouse, standing them on a bench near the roof-glass. Insert them singly in small pots of sandy loam and leaf-mould, or several round the sides of 4-inch pots. Place them under hand-lights or in a frame stood on the stage in the greenhouse.

Schizanthus.—The final potting of the first batch of this popular annual for greenhouse flowering now requires attention. As a potting compost use fibrous loam, mixing with it leaf-mould, some old decayed manure from a spent hot-bed, and coarse sand. The size of the pots will vary from 6 inches to 9 inches, according to the size and age of the plants. It will now be necessary to stand the plants on a light stage or bench, preferably facing south, as they have grown too large for the shelves near the roof-glass.

Perpetual-Flowering Carnations.—Formerly largely propagated from cuttings in late summer and early autumn, January is now more generally

Hollies this year, but the deciduous *Ilex verticillata* is very attractive with its bright red fruits.

Bulbs and Tubers in Store.—When inclement weather prevents work outdoors, numerous bulbs and tubers stored in cellars or frost-proof sheds should be examined. One or two decaying bulbs will soon spread rot to those around if not removed. Ascertain at the same time that the material or position is neither too wet nor sufficiently dry to cause shrivelling among Begonias, Dahlias, Gladioli, *Salvia patens*, *Tigridias* and Cannas.

The Hardy Fruit Garden.

Strawberries.—The beds will benefit by a light forking over during favourable weather, giving a liberal mulching of well-rotted manure. New beds may have the surface soil stirred, but as the ground was well manured previous to planting, mulching is not required. As in normal times labour for trenching is easier to appropriate in winter, the ground intended to be devoted to a new Strawberry-bed is usually trenched about this time, and an early crop of Potatoes or Turnips taken off the ground previous to putting in the runners.

Pears.—In pruning the trees on the walls and espaliers it is worth while cutting out an old spur here and there where crowded. Generally speaking, there is the promise of an abundance

should be made, so that each quarter may be dug or trenched and manured accordingly and ground apportioned for each crop.

The Turf Heap.—This is indispensable in every garden and should be attended to about this time. Those who have access to old pasture over a good soil have everything required. Sufficient should be cut and stacked with the grass side downwards, where it should remain for about a year before being used for purposes. If required for the formation of borders or other fruit borders, it may, along with ingredients, be used at once. Where, however, a good rich turf cannot be obtained, the gardener must make the best of the material available. Turf of an inferior quality may be improved by the addition of layers of good farmyard manure when stacking, which, by the addition of artificial fertilisers at potting-time, may be made suitable for all general potting purposes; but no gardener should go to the trouble of constructing a permanent Vine border until assured of a good supply of fine quality.

The Flower Garden.

Sweet Peas.—The preparation of the ground for planting out the early sowing of Sweet Peas should be undertaken some time in advance of planting, so that the ground may have time to settle. Deep trenching and liberal manuring should be observed and, if possible, a change of site made every year. Continuous rains lately have rendered the ground very sodden, so that digging is likely to be delayed than done under unfavourable conditions. During wet weather much may be accomplished in the way of preparation of stakes, labels and

Plants Under Glass.

Amaryllids and Clivias.—A few of these should now be placed in a warm house to provide flowers. The former may be given a top-dressing of fresh soil, after scraping away a portion of exhausted surface soil. At the same time examine the drainage to see that it is correct. Plants of Clivias that are well established in pots should receive liberal doses of liquid manure to strengthen their flower-spikes.

Gardenias.—Plants showing flower-buds should have some liquid fertiliser and the sides removed. Syringe the plants regularly with insecticide to keep mealy bug in check. A potassium emulsion is a good preventive against this pest.

Ferns.—Water should now be partly withheld from the Maidenhair Ferns, so that they may have a short period of rest before being cut and started again. *Gymnogrammas*, *Asplenium Davallias* and *Nephrolepis* require moist conditions, but watering must be done with care. Avoid having hot, dry corners in the house, as thrip and spider will damage the fine fronds.

THOMAS WILSON.

(Gardener to the Earl of Strathmore, Glamis Castle, N.B.)



THE WHITE MEMORIAL MEDAL AWARDED TO WILLIAM ROBINSON.

favoured with the many new sorts introduced during recent years. A propagating-frame with a fair amount of bottom-heat is desirable. When grown in quantity it is easier to prepare a bed of sand or sandy soil in the frame, dibbling the cuttings firmly into this, in preference to numbers of small pots. Pure sand has the double advantage of allowing the heat to rise from below readily and water to pass through freely.

Cucumbers.—To maintain the plants in good health at present, careful attention is necessary. A temperature of about 65°, rising to 75° on bright days, will suffice. During dull weather damping of the walls and paths will suffice, with overhead syringing about midday when the weather is bright. On very cold nights, covering of the house or pit will obviate excessive heat in the hot-water pipes.

The Flower Garden.

Berried Shrubs.—It is interesting and useful to take note of the shrubs upon which the berries or fruits hang the longest in good condition. The mild weather has enabled the birds to find other food readily, and with us many shrubs are still untouched. Notable examples are *Berberis vulgaris*, *Pyracantha coccinea*, *Lelandia*, *Cotoneaster rotundifolia* and *C. frigida*, *Pernettya mucronata* and *Hippophae rhamnoides*. There are comparatively few berries on the evergreen

of blossoms, so that this can be done more easily than in some seasons.

Kew.

A. OSBORN.

FOR NORTHERN GARDENS.

The Kitchen Garden.

Celery.—A quantity of roots should be lifted on a fine day and stored in a shed in sand. Sufficient for a week or ten days' supply may be safely stored at a time without in any way affecting the quality. It is much better thus than depending on lifting a small supply daily, by no means an easy task when the ground is frost-bound. The same remarks apply to Leeks, but these should be laid in the soil in the open, closely packed together and covered with Bracken or other protecting material.

The Seed Catalogues.—These are now coming to hand, although of more modest dimensions than usual. The long winter evenings may be profitably spent in making a careful selection of the varieties and quantities required, and the order should be despatched as soon as possible, so as to give the seedsman with his much-depleted staff an opportunity of overtaking the work of executing the order in good time; instead of leaving the order till sowing-time, when delay may lead to disappointment and worry. A rough plan of the proposed cropping of the kitchen garden

HONOUR FOR MR. WILLIAM ROBINSON.

THE trustees of the Massachusetts Horticultural Society have awarded the George Robert White Medal of Honour for the year 1916 to Mr. William Robinson of Gravetye Manor, Sussex. We congratulate the founder of THE GARDEN on this new honour. As all readers know, he has won much, especially through his writings in horticultural literature, as an exponent of the new style of flower gardening as opposed to the old carpet bedding and ribbon borders of former years.

This is the eighth award of this medal by the society in recognition of eminent service in the advancement of horticulture. Previous awards have been made to Professor C. S. Sargent of the Arnold Arboretum; Jackson T. Davis of Victor Lemoine of Nancy, France; Michael Walsh, the Rose specialist of Woods Hole, Massachusetts; Park Commission of the City of Rochester, New York; Sir Harry J. Veitch, V.M.H.; and Dr. Ernest H. Wilson, V.M.H.

